

The copyright © of this thesis belongs to its rightful author and/or other copyright owner. Copies can be accessed and downloaded for non-commercial or learning purposes without any charge and permission. The thesis cannot be reproduced or quoted as a whole without the permission from its rightful owner. No alteration or changes in format is allowed without permission from its rightful owner.



**SUSTAINABILITY RISK MANAGEMENT IMPLEMENTATION AND ITS  
IMPACT ON THE CORPORATE SURVIVAL OF ENVIRONMENTALLY  
SENSITIVE LISTED COMPANIES IN MALAYSIA**



**NAZLIATUL ANIZA ABDUL AZIZ**

**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
March 2018**

**SUSTAINABILITY RISK MANAGEMENT IMPLEMENTATION  
AND ITS IMPACT ON THE CORPORATE SURVIVAL OF  
ENVIRONMENTALLY SENSITIVE LISTED COMPANIES IN  
MALAYSIA**

**By**

**NAZLIATUL ANIZA BINTI ABDUL AZIZ**



**UUM**  
**Universiti Utara Malaysia**

**Thesis Submitted to  
School of Economics, Finance and Banking,  
Universiti Utara Malaysia,  
in Fulfilment of the Requirement for the Degree of Doctor of Philosophy**



**Kolej Perniagaan**  
(College of Business)  
**Universiti Utara Malaysia**

**PERAKUAN KERJA TESIS / DISERTASI**  
(Certification of thesis / dissertation)

Kami, yang bertandatangan, memperakukan bahawa  
(We, the undersigned, certify that)

**NAZLIATUL ANIZA ABDUL AZIZ**

calon untuk Ijazah  
(candidate for the degree of)

**DOCTOR OF PHILOSOPHY (FINANCE AND BANKING)**

telah mengemukakan tesis / disertasi yang bertajuk:  
(has presented his/her thesis / dissertation of the following title):

**SUSTAINABILITY RISK MANAGEMENT IMPLEMENTATION AND ITS IMPACT ON THE CORPORATE SURVIVAL OF ENVIRONMENTALLY SENSITIVE LISTED COMPANIES IN MALAYSIA**

seperti yang tercatat di muka surat tajuk dan kulit tesis / disertasi.  
(as it appears on the title page and front cover of the thesis / dissertation).

Bahawa tesis/disertasi tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan, sebagaimana yang ditunjukkan oleh calon dalam ujian lisan yang diadakan pada:  
**14 Disember 2016.**

(That the said thesis/dissertation is acceptable in form and content and displays a satisfactory knowledge of the field of study as demonstrated by the candidate through an oral examination held on:  
**14 December 2016).**

Pengerusi Viva  
(Chairman for Viva)

: **Prof. Madya Dr. Rohani Md. Rus**

Tandatangan  
(Signature)

Pemeriksa Luar  
(External Examiner)

: **Prof. Madya Dr. Wan Norhayate Wan Daud**

Tandatangan  
(Signature)

Pemeriksa Dalam  
(Internal Examiner)

: **Dr. Arpah Abu Bakar**

Tandatangan  
(Signature)

Tarikh: **14 Disember 2016**  
(Date)

Nama Pelajar  
(Name of Student)

: Nazliatul Aniza Abdul Aziz

---

Tajuk Tesis / Disertasi  
(Title of the Thesis / Dissertation)

: Sustainability Risk Management Implementation and Its Impact on the  
Corporate Survival of Environmentally Sensitive Listed Companies in  
Malaysia

---

Program Pengajian  
(Programme of Study)

: Doctor of Philosophy (Finance and Banking)

---

Nama Penyelia/Penyelia-penyelia  
(Name of Supervisor/Supervisors)

Prof. Madya Dr. Norlida Abdul Manab

---

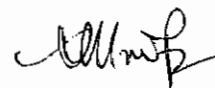


Tandatangan

Nama Penyelia/Penyelia-penyelia  
(Name of Supervisor/Supervisors)

Prof. Madya Dr. Siti Norezam Othman

---



Tandatangan

## PERMISSION TO USE

In presenting this thesis in fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of School of Economics, Finance and Banking where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Dean of School of Economics, Finance and Banking  
Universiti Utara Malaysia  
06010 UUM Sintok  
Kedah Darul Aman



**UUM**  
Universiti Utara Malaysia

## ABSTRACT

The changes in business environment such as technological expansion and globalisation are reshaping the business landscape and have increased pressure to companies to place greater emphasis on the emerging sustainability risks. Sustainability risk management (SRM) is an extension to Enterprise Risk Management (ERM) approach to manage the broad spectrum of risks arising from sustainability issues such as climate change, resources depletion and natural catastrophes with the aim to maximise environmental, social and economic performances for corporate survival while preserving communities and the environment. The purpose of this research is to examine the impact of sustainability risk management (SRM) implementation and SRM key factors on the corporate survival of environmentally sensitive listed companies in Malaysia. Further, the study also determine the moderating effect of ERM level of implementation on the relationship between SRM key factors and corporate survival relationship. The study adopts a triangulation method, which is a combination of a survey and a case study. A total of 53 survey responses are collected and four companies are interviewed. The findings of the study revealed that only compliance has significant effect on the corporate survival of environmentally sensitive listed companies. Findings also confirmed that ERM level of implementation does not moderates the relationship between SRM key factor of compliance and corporate survival. This study makes several theoretical contributions and provides further insights about the extent of sustainability risk integration into ERM practices in Malaysia. The findings of the study showed that environmentally sensitive companies are in the early stages of SRM implementation. In the context of current business environment, companies can no longer spot the known risks but also keep watching and estimating the unknown events that may have extreme impact on their businesses. The results of this study offer valuable insight to environmentally sensitive companies, regulators, and researchers to further understand the effects of SRM implementation on corporate survival. The study recommends that sound risk culture, adequate risk management tools and effective business continuity planning would be beneficial to environmentally sensitive companies in responding to the emerging environmental and social risks.

**Keywords:** sustainability, enterprise risk management (ERM), corporate survival, key factors, environmentally sensitive companies

## ABSTRAK

Perubahan dalam persekitaran perniagaan seperti pengembangan teknologi dan globalisasi membentuk semula landskap perniagaan dan menambahkan tekanan ke atas syarikat untuk menumpukan kepada kemunculan risiko kelestarian. Pengurusan Risiko Kelestarian (SRM) adalah lanjutan daripada pendekatan Pengurusan Risiko Perusahaan (ERM) untuk mengurus spektrum risiko yang meluas berpunca daripada isu kelestarian seperti perubahan cuaca, kekurangan sumber dan bencana alam dengan matlamat untuk memaksimumkan prestasi alam sekitar, sosial dan ekonomi untuk kewujudan syarikat serta memelihara komuniti dan alam sekitar. Tujuan penyelidikan ini adalah untuk mengkaji kesan pelaksanaan pengurusan risiko kelestarian (SRM) dan faktor utama SRM ke atas kelangsungan korporat bagi syarikat tersenarai yang peka terhadap persekitaran di Malaysia. Selanjutnya, kajian ini juga menentukan kesan penyederhanaan tahap pelaksanaan ERM ke atas hubungan di antara faktor utama SRM dan hubungan kelangsungan korporat. Kajian ini menggunakan kaedah triangulasi, iaitu kombinasi di antara kaji selidik dan kajian kes. Sejumlah 53 maklum balas kaji selidik dikumpulkan dan empat buah syarikat ditemu bual. Penemuan kajian mendedahkan bahawa hanya pematuhan mempunyai kesan yang signifikan ke atas kelangsungan korporat syarikat tersenarai yang peka terhadap alam sekitar. Penemuan juga menetapkan tahap pelaksanaan ERM tidak menyederhanakan hubungan antara faktor utama pematuhan SRM dan kelangsungan korporat. Kajian ini menyumbang beberapa teori dan menyediakan pandangan lebih lanjut mengenai sejauh mana integrasi risiko kelestarian ke dalam amalan ERM di Malaysia. Penemuan kajian ini menunjukkan syarikat peka terhadap alam sekitar berada pada peringkat awal pelaksanaan SRM. Dalam konteks persekitaran perniagaan terkini, syarikat tidak boleh lagi hanya mengenal pasti risiko tetapi juga perlu terus memerhati dan meramalkan perkara yang tidak dijangka yang mungkin mempunyai kesan yang melampau terhadap perniagaan. Keputusan kajian ini menawarkan wawasan yang bernilai kepada syarikat yang peka terhadap alam sekitar, pengawal selia, dan penyelidik untuk terus memahami kesan pelaksanaan SRM terhadap kelangsungan korporat. Kajian ini juga mencadangkan bahawa budaya risiko yang kukuh, alat pengurusan risiko yang mencukupi dan perancangan kesinambungan perniagaan yang berkesan akan memberikan manfaat kepada syarikat yang peka terhadap alam sekitar dalam menganggapi risiko alam sekitar dan sosial yang sedang muncul.

**Kata kunci:** kelestarian, pengurusan risiko perusahaan (ERM), kelangsungan korporat, faktor utama, syarikat yang peka terhadap alam sekitar.



## ACKNOWLEDGEMENT

Praise to the Almighty Lord, the most merciful and compassionate, for granting me the strength and wisdom to complete this research.

My deepest appreciation and special thanks to my dedicated main supervisor Associate Professor Dr. Norlida Abdul Manab for her continuous support, patience, motivation, invaluable guidance and immense knowledge throughout this research journey. I would like to extend my deepest thanks and appreciation to Associate Professor Dr. Siti Norezam Othman, the co-supervisor for her invaluable input, enthusiasm, constructive comments and suggestions.

A heartfelt love and gratitude to my mother, Nurulhuda Abdul Malek and father Abdul Aziz Mustaffa for supporting me spiritually all steps of my life. My sincere appreciation to my son Aliff Haiqal, for his love and understanding. My deepest gratitude to my siblings Nurul Izzah and Ahmad Nazrin for their continual encouragement and prayers. Not forgetting to all my loved and supportive friends' fi sabilillah.

May ALLAH rewards you all for the love and motivation spread to me. Ameen.



## TABLE OF CONTENTS

<b>PERMISSION TO USE.....</b>	<b>ii</b>
<b>ABSTRACT .....</b>	<b>iii</b>
<b>ABSTRAK .....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>TABLE OF CONTENTS .....</b>	<b>vi</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>LIST OF FIGURES .....</b>	<b>xiii</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>xiv</b>
<b>LIST OF APPENDICES .....</b>	<b>xv</b>

<b>CHAPTER 1 INTRODUCTION .....</b>	<b>1</b>
1.1 Background of Study .....	1
1.2 Problem Statement .....	4
1.3 Research Questions .....	10
1.4 Research Objectives .....	11
1.5 Significance of Study .....	11
1.6 Scope and Limitations of Study .....	13
1.7 Definition of Key Terms .....	14
1.8 Structure of Thesis .....	16

<b>CHAPTER 2 LITERATURE REVIEW.....</b>	<b>18</b>
2.1 Introduction .....	18
2.2 Nature of Risk .....	18
2.3 Risk Management Development .....	20
2.4 Enterprise Risk Management (ERM).....	22
2.4.1 ERM Implementation and Practices .....	24
2.4.2 The Challenges of ERM Practices.....	26
2.5 The Concept of Sustainability and Triple Bottom Line .....	29
2.6 Sustainability Risk Management (SRM).....	31
2.7 Previous Studies on the Integration of Sustainability into ERM Practices .....	35
2.8 Comparative Analysis of TRM, ERM and SRM .....	37

2.9 Drivers and Barriers to SRM Implementation .....	39
2.10 The Main Areas of Emerging Risk in SRM Programme .....	40
2.11 Corporate Governance.....	42
2.11.1 Corporate Governance in Malaysia .....	44
2.11.2 SRM Approach from the Perspective of Corporate Governance .....	45
2.12 SRM Key Factors .....	48
2.12.1 Compliance .....	48
2.12.2 Risk Culture .....	50
2.12.3 Risk Governance.....	53
2.12.4 Leadership .....	55
2.13 ERM Level of Implementation .....	58
2.14 Corporate Survival .....	59
2.14.1 Stakeholder Value.....	59
2.14.2 Corporate Reputation.....	62
2.15 Conclusion.....	64
 <b>CHAPTER 3 THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT .....</b>	 <b>65</b>
3.1 Introduction .....	65
3.2 Underpinning Theories.....	65
3.2.1 Post Modern Portfolio Theory (PMPT).....	65
3.2.2 Stakeholder Theory.....	68
3.3 Theoretical Framework .....	69
3.4 Hypotheses Development.....	73
3.4.1 SRM Implementation and Corporate Survival .....	73
3.4.2 SRM Key Factors and Corporate Survival .....	74
3.4.3 Moderating Effects of ERM's Level of Implementation on the Relationship between SRM Key Factors and Corporate Survival.....	77
3.5 Conclusion.....	79
 <b>CHAPTER 4 RESEARCH METHODOLOGY .....</b>	 <b>80</b>
4.1 Introduction .....	80
4.2 Research Design.....	80
4.3 Research Process .....	83

4.4 Unit of Analysis .....	84
4.4 Quantitative Research Method .....	84
4.4.1 Population .....	86
4.4.2 Sample Size .....	86
4.4.3 Questionnaires Development .....	87
4.4.4 Level of Measurement .....	88
4.4.5 Reliability and Validity of Questionnaires .....	89
4.4.6 Quantitative Data Collection .....	90
4.4.7 Quantitative Data Analysis .....	90
4.5 Qualitative Research Method .....	91
4.5.1 Case Study Method .....	92
4.5.2 Qualitative Data Collection .....	93
4.5.3 Qualitative Data Analysis .....	94
4.5.4 Validity and Reliability of Qualitative Research .....	95
4.6 Conclusion .....	95
<b>CHAPTER 5 SURVEY ANALYSIS AND FINDINGS .....</b>	<b>97</b>
5.1 Introduction .....	97
5.2 Overview of Data Collected .....	97
5.2.1 Response Rate .....	97
5.2.2 Normality Test .....	98
5.2.3 Non-Response Bias .....	99
5.2.4 Profiles of the Participating Companies .....	100
5.3 Factoring and Reliability of the Variables .....	101
5.4 Descriptive Analysis .....	102
5.4.1 ERM Practices .....	102
5.4.2 Department in Charge .....	105
5.4.3 Risk Oversight Leadership .....	106
5.4.4 SRM Drivers .....	108
5.4.5 SRM Barriers .....	110
5.4.6 Sources of Environmental and Social Risk .....	112
5.4.7 SRM Key Factors .....	114
5.4.8 Corporate Survival .....	114
5.5 Correlation Analysis of the study variables .....	115

5.6 Multiple Regression Analysis .....	116
5.6.1 The Effect of SRM Key Factors on Corporate Survival .....	116
5.6.2 The Moderating Effect of ERM level of implementation between SRM Key Factors and Corporate Survival .....	118
5.7 Conclusion.....	120
 <b>CHAPTER 6 CASE STUDY FINDINGS AND ANALYSIS .....</b>	<b>121</b>
6.1 Introduction .....	121
6.2 Background of the Participating Companies.....	122
6.3 Enterprise Risk Management (ERM) Practices .....	124
6.4 Sustainability Risk Management (SRM) Implementation .....	127
6.4.1 SRM Drivers.....	127
6.4.2 SRM Barriers .....	129
6.5 Effective Implementation of SRM Programme .....	130
6.6 SRM Implementation and its Impact on Corporate Survival .....	136
6.7 Conclusion.....	138
 <b>CHAPTER 7 DISCUSSION, CONCLUSION AND RECOMMENDATIONS.</b>	<b>140</b>
7.1 Introduction .....	140
7.2 Recapitulation of the Study Findings .....	140
7.3 Profile of the Participating Companies .....	141
7.4 Discussion of the Findings .....	142
7.4.1 SRM Implementation .....	142
7.4.2 SRM Key Factors .....	144
7.4.3 SRM: An Extension to ERM .....	147
7.4.4 The Impact of SRM Implementation on Corporate Survival .....	150
7.5 Implications of the Study .....	151
7.5.1 Theoretical Implications .....	151
7.5.2 Practical Implications .....	153
7.6 Recommendations for Future Research .....	154
 <b>REFERENCES.....</b>	<b>157</b>
<b>Appendix A: Questionnaire.....</b>	<b>208</b>
<b>Appendix B: Factor Analysis .....</b>	<b>215</b>

<b>Appendix C: Diagnostic Test.....</b>	<b>218</b>
<b>Appendix D: Interview Protocol.....</b>	<b>220</b>
<b>Appendix E: Case Study Transcribe Data .....</b>	<b>221</b>



## LIST OF TABLES

Table		Page
Table 2.1	Comparison between TRM, ERM and SRM program	38
Table 4.1	Reasons for adopting mixed-method design	81
Table 4.2	Advantages and disadvantages of various survey methods	85
Table 4.3	Summary of variables and total number of items	88
Table 4.4	Case study tactics for four design tests	95
Table 5.1	Survey response rate	98
Table 5.2	Normality test	98
Table 5.3	Result of non-response bias test	99
Table 5.4	Participating companies profiles (N=53)	100
Table 5.5	Number of employees of participating companies (N=53)	100
Table 5.6	Result for factoring and reliability of independent and dependent variables (N=53)	101
Table 5.7	Length of ERM implementation	102
Table 5.8	Length of ERM implementation according to sector	103
Table 5.9	ERM level of Implementation according to sector	104
Table 5.10	Department in-charge of ERM according to sector	105
Table 5.11	Primary responsibility in risk management program according to sector	107
Table 5.12	SRM drivers	107
Table 5.13	SRM drivers according to sector	108
Table 5.14	SRM barriers	109
Table 5.15	SRM barriers according to sector	110
Table 5.16	Sources of environmental and social risk and type of sector	113
Table 5.17	SRM key factors	114
Table 5.18	Mean analysis of corporate survival between type of sector	115
Table 5.19	Means, standard deviations and correlation variables	116
Table 5.20	Stepwise multiple regression model on SRM key factors and corporate survival	117
Table 5.21	Hierarchical stepwise multiple regression model between SRM key factors and corporate survival	118
Table 5.22	Results of hypotheses testing	119

Table 6.1	Summary of company background	122
Table 6.2	ERM Implementation and ERM level of Implementation	125
Table 6.3	SRM drivers	127
Table 6.4	SRM barriers	129
Table 6.5	SRM key factors	130
Table 6.6	Corporate Survival	136
Table 7.1	Hypothesis and Summary of Results	144





## LIST OF FIGURES

Figure		Page
Figure 2.1	ERM Implementation Requirement	24
Figure 2.2	Sustainable Development Journey	33
Figure 2.3	Governance, risk management and compliance relationship	50
Figure 3.1	Research framework	69
Figure 4.1	Triangulation mixed-methods design	82
Figure 4.2	Research process	83
Figure 5.1	ERM level of implementation	103
Figure 5.2	Department in-charge of risk management program	105
Figure 5.3	Primary responsibility of ERM program	106
Figure 5.4	Percentages of sources of environmental and social risk	112
Figure 5.5	Percentages of corporate survival measures	115



## LIST OF ABBREVIATIONS

TRM	Traditional Risk Management
ERM	Enterprise Risk Management
SRM	Sustainability Risk Management
BOD	Board of Directors
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CRO	Chief Risk Officer
MCCG	Malaysian Code on Corporate Governance
PMPT	Post Modern Portfolio Theory
COSO	Committee of Sponsoring Organizations of the Treadway Commission
WCED	World Commission on Environment and Development
WBCSD	World Business Council for Sustainable Development



UUM  
Universiti Utara Malaysia

## LIST OF APPENDICES

Appendix	Page
Appendix A Questionnaire	208
Appendix B Factor analysis	215
Appendix C Diagnostic test	218
Appendix D Interview protocol	220
Appendix E Case study transcribe data	221



# CHAPTER 1

## INTRODUCTION

### 1.1 Background of Study

Sustainability issues such as climate change, extreme weather events, natural catastrophes and resource scarcity cause serious economic losses and affect the world's economy, society and environment (Pagell & Shevchenko, 2014). The advent of new technological, environmental and social change is a cause of increased concern about sustainability issues (Mazri, 2013). Subsequently, these issues become a concern for a company in managing environmental and social risks which have so far been ignored (Freise & Seuring, 2015). The past few years have seen catastrophic events such as hurricane Sandy and Volkswagen emission scandals which have exposed companies to greater environmental and social risks. Companies have yet recognised the impact of sustainability issues on their supply chains and stakeholders (Fink & Whelan, 2016). Furthermore, environmental and social risks have been discovered as the greatest threat to companies in a survey conducted by the World Economic Forum's Global Risks in 2017.

Companies are facing more significant stakeholder pressure to operate more responsible businesses due to sustainability issues, and these issues influence corporate survival (Giannakis & Papadopoulos, 2016). This pressure has triggered companies to take more initiative to address environmental and social risks (Garcés-Ayerbe et al., 2012). Most have realised that the failure to address the environmental and social risks have consequences on the stakeholder value and corporate reputation (Dafikpaku, 2011). This is because stakeholders have placed their trusts on the

The contents of  
the thesis is for  
internal user  
only

## REFERENCES

- Abdullah, M. H. S. B., Janor, H., Hamid, M. A., & Yatim, P. (2017). The Effect of Enterprise Risk Management on Firm Value: Evidence from Malaysian Technology Firms. *Jurnal Pengurusan (UKM Journal of Management)*, 49, 3-11.
- Adam, A. M. (2005) Effective implementation of ethical programs: Theory and practice. In *Twelfth Annual International Conference Promoting Business Ethics Hosted by St. John's University, New York October* (pp. 26-28).
- Adam, A. M., & Shavit, T. (2008). How can a ratings-based method for assessing corporate social responsibility (CSR) provide an incentive to firms excluded from socially responsible investment indices to invest in CSR? *Journal of Business Ethics*, 82(4), 899-905.
- Ahmad, Z., Hassan, S. & Mohammad, J. (2003). Determinants of environmental reporting in Malaysia. *International Journal of Business Studies*, 11(1), 69-90.
- Ahmed, I., & Manab, N. A. (2016). Moderating role of board equity ownership on the relationship between enterprise risk management implementation and firms performance: A proposed model. *International Journal of Management Research and Reviews*, 6(1), 21.
- Ahn, N. (2015). Corporate Sustainability and Enterprise Risk Management: Implementation Effects on Performance. Retrieved from [https://www2.aaahq.org/AM/display.cfm?Filename=SubID\\_800.pdf&MIMEType=application/pdf](https://www2.aaahq.org/AM/display.cfm?Filename=SubID_800.pdf&MIMEType=application/pdf).

- Althonayan, A., Keith, J., & Killackey, H. (2012). Enterprise Risk-Shifting into an ERM Culture-A sustainable enterprise risk management program enhances a bank's long-term viability. *RMA Journal*, 95(2), 12.
- Andersen, T. J., & Schrøder, P. W. (2010), *Strategic risk management practice: how to deal effectively with major corporate exposures*. Cambridge University Press.
- Anderson, D. R. (2005). *Corporate survival: The critical importance of sustainability risk management*. New York, iUniverse.
- Anderson, D. R. (2007). Why Sustainability Risk Management Matters, *The John Liner Review*, 20(4), 6-26.
- Anderson, D. R., & Anderson, K. E. (2009). Sustainability risk management. *Risk Management and Insurance Review*, 12(1), 25-38.
- AON. (2007). *Sustainability - Beyond Enterprise Risk Management*. Retrieved from [http://www.aon.com/about-aon/intellectual-capital/attachments/risk-services/sustainability\\_beyond\\_enterprise\\_risk\\_management.pdf](http://www.aon.com/about-aon/intellectual-capital/attachments/risk-services/sustainability_beyond_enterprise_risk_management.pdf).
- Aras, G. and Crowther, D. (2009), *The Durable Corporation: Strategies for Sustainable Development*, Gower, Farnham, Burlington, VT.
- Arena, M., Arnaboldi, M., & Azzone, G. (2011). Is enterprise risk management real?, *Journal of Risk Research*, 14(7), pp.779-797.
- Ashby, S., Palermo, T., & Power, M. (2012). Risk culture in financial organisations: An interim report. *Center for Analysis of Risk and Regulation, the London School of Economics and Political Science*, London. Retrieved from

[http://www2.lse.ac.uk/researchAndExpertise/units/CARR/pdf/Risk-culture  
interim-report.pdf](http://www2.lse.ac.uk/researchAndExpertise/units/CARR/pdf/Risk-culture%20interim-report.pdf). 2012.

Bank Negara Malaysia. (2014). Developments in the Malaysian economy. Quarterly Bulletin. Second Quarter 2014.

Banks, E. (2012). *Risk Culture: A Practical Guide to Building and Strengthening the Fabric of Risk Management*. London: Palgrave Macmillan.

Barton, T. L., Shenkir, W. G., & Walker, P. L. (2002). *Making enterprise risk management pay off*. FT Press.

Basel Committee on Banking Supervision (2006) *Basel II: International Convergence of Capital Measurement and Capital Standards: A Revised Framework – Comprehensive Version*, Bank for International Settlements, Basel, Switzerland.

Basel Committee. (2011), *The new Basel capital accord*. Bank for International Settlements, Basel, Switzerland.

Baxter, R., Bedard, J. C., Hoitash, R., & Yezegel, A. (2013). Enterprise Risk Management Program Quality: Determinants, Value Relevance, and the Financial Crisis. *Contemporary Accounting Research*, 30(4), 1264–1295.

Bazerman, M. H., & Watkins, M. (2004). *Predictable surprises: The disasters you should have seen coming, and how to prevent them*. Harvard Business Press.

Beasley, M. S., & Showalter, D. S. (2015). ERM and Sustainability: Together on the Road Ahead. *Strategic Finance*, 96(9), 32–39.



- Beasley, M. S., Clune, R., & Hermanson, D. R. (2005). Enterprise risk management: An empirical analysis of factors associated with the extent of implementation. *Journal of Accounting and Public Policy*, 24(6), 521-531.
- Beasley, M., Branson, B., & Hancock, B. (2016). The State of Risk Oversight: An Overview of Enterprise-Wide Risk Management Practices Overview. Retrieved from [https://erm.ncsu.edu/az/erm/i/chan/library/AICPA\\_ERM\\_Research\\_Study\\_2016.pdf](https://erm.ncsu.edu/az/erm/i/chan/library/AICPA_ERM_Research_Study_2016.pdf).
- Beasley, M., Branson, B., & Pagach, D. (2015). An analysis of the maturity and strategic impact of investments in ERM, *Journal of Accounting and Public Policy*, 34(3), 219-243.
- Beasley, M., Pagach, D., & Warr, R. (2008). Information conveyed in hiring announcements of senior executives overseeing enterprise-wide risk management processes, *Journal of Accounting, Auditing & Finance*, 23(3), pp.311-332.
- Beaumier, C., & DeLoach, J. (2011). Ten common risk management failures and how to avoid them. *Business Credit*, 113(8), 46.
- Begum, R. A., Pereira, J. J., Jaafar, A. H., & Al-Amin, A. Q. (2009). An empirical assessment of ecological footprint calculations for Malaysia. *Resources, conservation and recycling*, 53(10), 582-587.
- Benn, S., Dunphy, D., & Griffiths, A. (2014). Organizational change for corporate sustainability. Routledge.

- Benn, S., Dunphy, D., & Martin, A. (2009), Governance of environmental risk: new approaches to managing stakeholder involvement, *Journal of Environmental Management*, 90(4), 67–75.
- Bhagat, S. and Jefferis, R.H. (2002), *The Econometrics of Corporate Governance Studies*, The MIT Press, Cambridge, MA.
- Boulton, B. B. (2016). Risk Management Black Swans and Risk Management : Prepare Now for the Unthinkable. *Risk Management*, (34), 24–26.
- Boyd, D. P. (2003). Chicanery in the corporate culture: WorldCom or world con?. *Corporate Governance: The international journal of business in society*, 3(1), 83-85.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Bromley, D. B. (1986). *The case-study method in psychology and related disciplines*. John Wiley & Sons.
- Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done?. *Qualitative research*, 6(1), 97-113.
- Bugalla, J., J. Kallman, & K. Narvaez, (2014), Don't Fight the Fed: Be Fed-Ready Instead, *The RMA Journal*, (June): 44-48.
- Buniamin, S. (2012). The quantity and quality of environmental reporting in annual report of public listed companies in Malaysia. *Issues in Social and Environmental Accounting*, 4(2), 115-135.

- Burchell, J., & Cook, J. (2006). Confronting the “corporate citizen” Shaping the discourse of corporate social responsibility. *International Journal of Sociology and Social Policy*, 26(34), 121-137.
- Busch, T., & Hoffmann, V. H. (2007). Emerging carbon constraints for corporate risk management. *Ecological Economics*, 62(3), 518-528.
- Cassell, C., Buehring, A., Symon, G., Johnson, P. and Bishop, V. (2006). Qualitative management research: a thematic analysis of interviews with stakeholders in the field, ESRC Benchmarking Good Practice in Qualitative Management Research, ESRC Grant Number H33250006. UK, Swindon: The Economic and Social Research Council.
- Cerin, P., & Scholtens, B. (2011). Linking responsible investments to societal influence: motives, assessments and risks. *Sustainable Development*, 19(2), 71-76.
- Charlo, M. J., Moya, I., & Muñoz, A. M. (2015). Sustainable development and corporate financial performance: a study based on the FTSE4Good IBEX Index. *Business Strategy and the Environment*, 24(4), 277-288.
- Chen, H. H., Tsai, H. T., & Lin, D. K. (2011). Optimal mean-variance portfolio selection using Cauchy–Schwarz maximization. *Applied economics*, 43(21), 2795-2801.
- Chen, J. M. (2016). Postmodern Portfolio Theory. In *Postmodern Portfolio Theory* (pp. 27-38). Palgrave Macmillan US.

- Christofi, A., Christofi, P., & Sisaye, S. (2012). Corporate sustainability: historical development and reporting practices. *Management Research Review*, 157-172.
- Clark, C., Emerson, J., & Thornley, B. (2014). *The Impact Investor: Lessons in Leadership and Strategy for Collaborative Capitalism*. John Wiley & Sons.
- Coleman, C. N. (2013). 'Fukushima and the future of radiation research', *Radiation Research*, 179(1), pp.1-8.
- Coles, J. W., McWilliams, V. B., & Sen, N. (2001). An examination of the relationship of governance mechanisms to performance. *Journal of management*, 27(1), 23-50.
- Cooper, L., Evnine, J., Finkelman, J., Huntington, K., & Lynch, D. (2016). Social Finance and the Postmodern Portfolio: Theory and Practice. *The Journal of Wealth Management*, 18(4), 9-21.
- Cooper, T., Faseruk, A., & Khan, S. (2013). Examining Practitioner Studies to Explore ERM and Organizational Culture. *Journal of Management Policy & Practice*, 14(1), 53–68.
- Cort, T., & Gudernatch, S. (2014, March). Are Enterprise Risk Management Frameworks Effective for Prioritizing Sustainability Risks in the Oil and Gas Sector?. In *SPE International Conference on Health, Safety, and Environment*. Society of Petroleum Engineers.

- COSO, (2009). Effective Enterprise Risk Oversight: The Role of the Board of Directors, Committee of Sponsoring Organizations of the Treadway Commission (COSO). Retrieved from <http://www.coso.org>
- COSO. (2004) Enterprise risk management – Integrated framework. Retrieved from [http://www.coso.org/documents/coso\\_erm\\_executivesummary.pdf](http://www.coso.org/documents/coso_erm_executivesummary.pdf)
- COSO. (2011). Developing key risk indicators to strengthen enterprise risk management. Retrieved from [http://www.coso.org/documents/cosokripaperfullfinalforwebpostingdec110\\_000.pdf](http://www.coso.org/documents/cosokripaperfullfinalforwebpostingdec110_000.pdf).
- COSO. (2013). Demystifying Sustainability Risk: Integrating the triple bottom line into an enterprise risk management program. Retrieved from [http://www.coso.org/documents/coso\\_erm%20demystifying%20sustainability%20risk\\_full%20web.pdf](http://www.coso.org/documents/coso_erm%20demystifying%20sustainability%20risk_full%20web.pdf)
- Creswell, J. (2011). *Controversies in mixed methods research*. The Sage handbook of qualitative research, 269-283.
- Creswell, J. W. (2003). *Educational research: Planning, conducting, and evaluating quantitative*. Prentice Hall.
- Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. Sage.
- Creswell, J. W., & Clark, V. L. P. . (2007). *Designing and conducting mixed methods research*. Thousand Oaks: CA: Sage publications.
- Crocker, L., and Algina, J. (1986) *Introduction to Classical and Modern Test Theory*, Harcourt Brace Jovanovich College Publishers: Philadelphia.

- Cuomo, F., Mallin, C. & Zattoni, A., (2015). "Corporate Governance Codes: A Review and Research Agenda". *Corporate Governance: An International Review*, 24(3), 171–386.
- Curtis, G. (2002). Modern Portfolio theory and Quantum mechanics. *The Journal of Wealth Management*, 5(3), 7-13.
- Curtis, G. (2004). Modern portfolio theory and behavioral finance. *The Journal of Wealth Management*, 7(2), 16-22.
- Dafikpaku, E. (2011). The Strategic Implications of Enterprise Risk Management: A Framework. In Enterprise Risk Management Symposium 2011. Retrieved from <https://www.soa.org/library/monographs/other-monographs/2011/november/mono-2011-m-as11-1-dafikpaku.pdf>.
- D'Arcy, S. P., & Brogan, J. C. (2001). Enterprise risk management. *Journal of Risk Management of Korea*, 12(1), 207-228.
- Das, A. B. (2014), Ethical consequences: treatment of stakeholders in capitalistic approach and cooperative approach to business, *European Journal of Business and Management*, 6(23), 64-66
- Davies, M. A. (2012). *Best practice in corporate governance: building reputation and sustainable success*. Gower Publishing, Ltd..
- De Abreu, M. C. S. (2011). Effects of environmental pressures on company sustainability strategies: an interview study among Brazilian manufacturing firms. *International Journal of Management*, 28(3), 909-915

- Deloitte Development LLC. (2010). Sustainability in business today: A cross-industry view. Retrieved May 7, 2013, from [http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/IMOs/Corporate%20Responsibility%20and%20Sustainability/us\\_es\\_sustainability\\_exec\\_survey\\_060110.pdf](http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/IMOs/Corporate%20Responsibility%20and%20Sustainability/us_es_sustainability_exec_survey_060110.pdf).
- Deloitte. (2012). What is business for: The Millennial Survey 2011. Retrieved January 9, 2014, from [https://www.deloitte.com/assets/DcomCostaRica/Local%20Assets/Documents/Estudios/2012/120124-cr\\_Millennial\\_Survey\\_2011.pdf](https://www.deloitte.com/assets/DcomCostaRica/Local%20Assets/Documents/Estudios/2012/120124-cr_Millennial_Survey_2011.pdf)
- Demidenko, E., & McNutt, P. (2010). The ethics of enterprise risk management as a key component of corporate governance. *International Journal of Social Economics*, 37(10), 802-815.
- Demsetz, H. and Villalonga, B. (2002), "Ownership structure and corporate performance", *Journal of Corporate Finance*, 7, 209-233.
- Denscombe, M. (2008). Communities of practice a research paradigm for the mixed methods approach. *Journal of mixed methods research*, 2(3), 270-283.
- Denzin, N. K. (1978). *Sociological methods: A sourcebook*. McGraw-Hill Companies.
- Devellis, R.F. (1991) *Scale Development: Theory and Applications*, Applied Social Research Methods Series 26, Sage: Newbury Park.
- Dobler, M., Lajili, K., & Zéghal, D. (2014). Environmental performance, environmental risk and risk management. *Business Strategy and the Environment*, 23(1), 1-17.

- Doost, R. K., & Fishman, T. (2004). Beyond Arthur Andersen: searching for answers. *Managerial Auditing Journal*, 19(5), 623-639.
- Dunphy, D., & Griffiths, A. ad Benn, S.(2003). *Organizational Change for Corporate Sustainability*. Routledge.
- E. Cantor, D., Blackhurst, J., Pan, M., & Crum, M. (2014). Examining the role of stakeholder pressure and knowledge management on supply chain risk and demand responsiveness. *The International Journal of Logistics Management*, 25(1), 202-223.
- Eccles, R. G., Newquist, S. C., & Schatz, R. (2007). Reputation and its risks. *Harvard Business Review*, 85(2), 104.
- Eccles, R. G., Perkins, K. M., & Serafeim, G. (2012). How to become a sustainable company. *MIT Sloan Management Review*, 53(4), 43.
- Economist Intelligence Unit. (2009). After the storm A new era for risk management in financial services. Retrieved from [http://graphics.eiu.com/marketing/pdf/after the storm.pdf](http://graphics.eiu.com/marketing/pdf/after%20the%20storm.pdf)
- Economist Intelligence Units. (2011). *The sustainable future Promoting growth through sustainability*.
- Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of management review*, 14(4), 532-550.
- Elton, E. J., & Gruber, M. J. (1997). Modern portfolio theory, 1950 to date. *Journal of Banking & Finance*, 21(11), 1743-1759.



- Enric Ricart, J., Ángel Rodríguez, M., & Sánchez, P. (2005). Sustainability in the boardroom. *Corporate Governance: The international journal of business in society*, 5(3), 24–41.
- Epstein, M. J. (2010). *Making sustainability work. Best practices in managing and measuring corporate social, environmental, and economic impacts*. Sheffield: Greenleaf.
- Epstein, M. J., & Buhovac, A. R. (2010). Solving the sustainability implementation challenge. *Organizational dynamics*, 39(4), 306-315.
- Ernst & Young LLP. (2017). Banking in transition: overseeing non- financial risk in the midst of technological and business model transformation. Retrieved from [http://www.ey.com/Publication/vwLUAssets/ey-managing-non-financial-risk-in-new-era/\\$File/ey-managing-non-financial-risk-in-new-era.PDF](http://www.ey.com/Publication/vwLUAssets/ey-managing-non-financial-risk-in-new-era/$File/ey-managing-non-financial-risk-in-new-era.PDF).
- Fabozzi, F. J., & Drake, P. P. (2009). *Finance: capital markets, financial management, and investment management* (Vol. 178). John Wiley & Sons.
- Farrell, M., & Gallagher, R. (2014). The valuation implications of enterprise risk management maturity. *Journal of Risk and Insurance*, 82(3), 625-657.
- Fiksel, J. (2015). “From Risk to Resilience”. in *Resilient by Design* (pp. 19-34). Island Press/Center for Resource Economics.
- Flage, R., & Aven, T. (2015). Emerging risk–Conceptual definition and a relation to black swan type of events. *Reliability Engineering & System Safety*, 144, 61-67.

- Florio, C., & Leoni, G. (2016). "Enterprise risk management and firm performance: The Italian case". *The British Accounting Review*, 30(1).
- Fombrun, C. I. (2012). Corporate reputation: Definitions, antecedents, consequences. *The Oxford handbook of corporate reputation*.
- Fombrun, C. J., Ponzi, L. J., & Newburry, W. (2015). Stakeholder tracking and analysis: The RepTrak® system for measuring corporate reputation. *Corporate Reputation Review*, 18(1), 3-24.
- Fraser, J. R. S., Simkins, B. J., & Narvaev, K. (2015). *Implementing Enterprise Risk Management : Case Studies and Best Practices*. Hoboken, New Jersey: John Wiley & Sons, Inc.
- Freeman, R. (1984). *Strategic management: A stakeholder approach*. Massachusetts: Pitman Publishing Inc.
- Freeman, R. E. (2010). *Strategic management: A stakeholder approach*. Cambridge University Press.
- Freeman, R. E., Harrison, J. S., & Wicks, A. C. (2007). *Managing for stakeholders: Survival, reputation, and success*. Yale University Press.
- Freise, M., & Seuring, S. (2015). Social and environmental risk management in supply chains: a survey in the clothing industry. *Logistics Research*, 8(1), 2.
- Freise, M., & Seuring, S. (2015). Social and environmental risk management in supply chains: a survey in the clothing industry. *Logistics Research*, 8(1), 2.

- G. Walker, F. Tweed, R. Whittle, (2014) A framework for profiling the characteristics of risk governance in natural hazard contexts, *Nat. Hazards Earth Syst. Sci.* 14 (1)
- Gabrielsson, J., & Politis, D. (2006). Board control and corporate innovation: an empirical study of small technology-based firms (No. 2006/7). Lund University, CIRCLE-Center for Innovation, Research and Competences in the Learning Economy.
- Galbreath, J. (2009). Building corporate social responsibility into strategy. *European business review*, 21(2), 109-127.
- Galea, C. (2009), Consulting for Business Sustainability, Greenleaf, Sheffield.
- Garcés-Ayerbe, C., Rivera-Torres, P., & Murillo-Luna, J. L. (2012). Stakeholder pressure and environmental proactivity: Moderating effect of competitive advantage expectations. *Management Decision*, 50(2), 189-206.
- Gates, S. (2006). Incorporating Strategic Risk into Enterprise Risk Management: A Survey of Current Corporate Practice. *Journal of Applied Corporate Finance*, 18(4), 81-90.
- Gatzert, N., & Martin, M. (2015). Determinants and value of enterprise risk management: empirical evidence from the literature. *Risk Management and Insurance Review*, 18(1), 29-53.
- Gatzert, N., & Schmit, J. (2016). Supporting strategic success through enterprise-wide reputation risk management. *The Journal of Risk Finance*, 17(1), 26-45.
- Gazprom-Neft. 2010. 2010 Sustainability Report. Moscow: Gazprom Neft.

- Geambaşu, C., Şova, R., Jianu, I., & Geambaşu, L. (2013). Risk measurement in post-modern portfolio theory: differences from modern portfolio theory. *Economic Computation and Economic Cybernetics Studies and Research*, 1, 113-132.
- Ghauri, P., & Grønhaug, K. (2002). *Research Methods in Business Studies*. Harlow: Financial Times.
- Giannakis, M., & Papadopoulos, T. (2016). Supply chain sustainability: A risk management approach. *International Journal of Production Economics*, 171, 455-470.
- Girling, P. X. (2013). *Operational risk management: a complete guide to a successful operational risk framework*. John Wiley & Sons.
- Goon A.M., Gupta M. K., Dasgupta B. (1998): *Fundamentals of Statistics*, World Press.
- Gorzeń-Mitka, I. (2015). "Complexity in Management: Opportunity or Threat". *Problems of Management in the 21st Century*, 10(1), 4-5.
- Gramlich, D., & Finster, N. (2013), Corporate sustainability and risk, *Journal of Business Economics*, 83(6), 631-664.
- Grayson, D..M.,L., Slaughter,S., Rodriguez,M.A., Jin,Z., & Tay,S. (2008). A New Mindset for Corporate Sustainability. BT and Cisco.
- Greenbaum, S. I. (2015). Tail-Risk Perspectives. *The Journal of Investing*, 24(2), 164-175.

- Gregory, R.J. (1992) *Psychological Testing: History, Principles and Applications*, Allyn and Bacon: Boston
- Guenster, N., Bauer, R., Derwall, J., & Koedijk, K. (2011). The economic value of corporate eco-efficiency. *European Financial Management*, 17(4), 679-704.
- Hahn, R. (2013). ISO 26000 and the standardization of strategic management processes for sustainability and corporate social responsibility. *Business Strategy and the Environment*, 22(7), 442-455.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*, 5th. NY: Prentice Hall International.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (Vol. 6). Uppersaddle River, New Jersey: Pearson Education International.
- Hall, B., & Howard, K. (2008). A synergistic approach conducting mixed methods research with typological and systemic design considerations. *Journal of mixed methods research*, 2(3), 248-269.
- Hallegatte, S., & Rentschler, J. (2014), Risk Management for development - Assessing obstacles and prioritizing action, *Risk Analysis*, 35(2), 193-210.
- Healy, M., & Perry, C. (2000). Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative market research: An international journal*, 3(3), 118-126.

- Henson, R. K. (2001). Understanding internal consistency reliability estimates: A conceptual primer on coefficient alpha. *Measurement and evaluation in counseling and development*, 34(3), 177-188.
- Heracleous, L. (2001). What is the impact of corporate governance on organisational performance?. *Corporate Governance: An International Review*, 9(3), 165-173.
- Hespenheide, E. J., & Koehler, D. A. (2013). Drivers of long-term business value: Stakeholders, stats, and strategy. Retrieved from [http://d2mtr37y39tpbu.cloudfront.net/wp-content/uploads/2013/07/DUP149\\_Reporting\\_Stakeholders1.pdf](http://d2mtr37y39tpbu.cloudfront.net/wp-content/uploads/2013/07/DUP149_Reporting_Stakeholders1.pdf)
- High Level Finance Committee on Corporate Governance (HLFC), (1999). *Malaysian code on corporate governance*. March 2000. Kuala Lumpur: Securities Commission.
- Hofmann, H., Busse, C., Bode, C., & Henke, M. (2014). Sustainability-related supply chain risks: conceptualization and management. *Business Strategy and the Environment*, 23(3), 160-172.
- Hopkin, P. (2016). *Fundamentals of risk management: understanding, evaluating and implementing effective risk management*. Kogan Page Publishers.
- Horisch, J., Freeman, R. E., & Schaltegger, S. (2014). Applying Stakeholder Theory in Sustainability Management: Links, Similarities, Dissimilarities, and a Conceptual Framework. *Organization & Environment*.

- Hoti, S., Pauwels, L. L., & McAleer, M. (2004). Measuring environmental risk (Doctoral dissertation, International Environmental Modelling and Software Society).
- Hoyt, R. E., & Liebenberg, A. P. (2011). The value of enterprise risk management. *Journal of risk and insurance*, 78(4), 795-822.
- Hoyt, R. E., & Liebenberg, A. P. (2015). Evidence of the Value of Enterprise Risk Management. *Journal of Applied Corporate Finance*, 27, 41–47.
- Hubbard, D. W. (2009). *The failure of risk management: Why it's broken and how to fix it*. John Wiley & Sons.
- Hubbard, D. W. (2014). *How to measure anything: Finding the value of intangibles in business*. John Wiley & Sons.
- Hubbard, G. (2009). Measuring organizational performance: beyond the triple bottom line. *Business Strategy and the Environment*, 18(3), 177-191.
- Hutton, R. B., Cox, D. B., Clouse, M. L., Gaensbauer, J., & Banks, B. D. (2007). The role of sustainable development in risk assessment and management for multinational corporations. *Multinational Business Review*, 15(1), 89.
- IIF (Institute of International Finance). 2013. Promoting Sound Risk: Lessons Learned, Challenges Remaining and Areas for Further Consideration. IIF Issues Paper. Washington, DC: Institute of International Finance
- International Risk Governance Council (IRGC). (2010). Emerging Risks: Sources , drivers and governance issues. Retrieved from

<http://www.futurict.eu/sites/default/files/Emerging risks - sources, drivers and governance issues.pdf>

ISO 31000, (2010), "Risk Management - Principles and Guidelines", Retrieved from <http://www.iso.org/iso/home/standards/iso31000.htm>.

Ittner, C. D., & Keusch, T. (2015). The Influence of Board of Directors' Risk Oversight on Risk Management Maturity and Firm Risk-Taking. Retrieved from [http://care-mendoza.nd.edu/assets/212083/ittner\\_paper.pdf](http://care-mendoza.nd.edu/assets/212083/ittner_paper.pdf)

Jablonowski, M. (2009). *Managing high-stakes risk: toward a new economics for survival*. Palgrave Macmillan.

Jack, E. P., & Raturi, A. S. (2006). Lessons learned from methodological triangulation in management research. *Management Research News*, 29(6), 345-357.

Jacob, C. K. (2012), The Impact of Financial Crisis on Corporate Social Responsibility and Its Implications for Reputation Risk Management, *Journal of Management and Sustainability*, 2(2), 259–275.

Jaffar, R. (2006). 'The environmental reporting practice of 'Environmentally Problematic Firms' in Malaysia'. *The International Journal of Accounting, Governance and Society*, 1: 37-47

Jensen, M. C. (2002). Value maximization, stakeholder theory, and the corporate objective function. *Business Ethics Quarterly*, 12(02), 235-256.

Jogulu, U. D., & Pansiri, J. (2011). Mixed methods: a research design for management doctoral dissertations. *Management research review*, 34(6), 687-701.



- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. . (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, 1(2), 112-133.
- Jorge, A., Castello, I., de Colle,S., Lenssen,G., Neuman, K., & Zollo, M. (2011). Introduction to the Special Issue Integrating Sustainability in Business Models. *Journal of Management Development*, 30(10),941-964.
- Kaiser, T., (2016), Managing non-financial risks: A new focus area for executive and non-executive board members, *Journal of Risk Management in Financial Institutions*, 9(1),53-58.
- Kaminski, P., Mikkelsen, D., Poppensieker, T., & Raufuß, A. (2016). *Nonfinancial risk: A growing challenge for the bank*. Retrieved from <https://www.mckinsey.com/business-functions/risk/our-insights/nonfinancial-risk-a-growing-challenge-for-the-bank>.
- Kaplan, R. A., & Mikes, A. (2013). Managing risks: Towards a contingency theory of enterprise risks management. *Working Paper 13-063* Harvard Business School.
- Kaplan, R. S., & Mikes, A. (2012), Managing risks: A new framework, *Harvard Business Review*, 90(6), 48-60.
- Kimbrough, R. L., & Componation, P. J. (2009). The relationship between organizational culture and enterprise risk management. *Engineering Management Journal*, 21(2), 18-26.

- Kiron, D., Kruschwitz, N., Haanaes, K., & von Streng Velken, I. (2012). Sustainability nears a tipping point. *MIT Sloan Management Review*, 53(2), 69-74.
- Kleffner, A. E., Lee, R. B., & McGannon, B. (2003). The effect of corporate governance on the use of enterprise risk management: Evidence from Canada. *Risk Management and Insurance Review*, 6(1), 53-73.
- Klettner, A., Clarke, T., & Boersma, M. (2014). The governance of corporate sustainability: Empirical insights into the development, leadership and implementation of responsible business strategy. *Journal of Business Ethics*, 122(1), 145-165.
- Kocmanová, A., Hrebicek, J., & Docekalova, M. (2011). Corporate governance and sustainability. *Economics&Management*, 16, 543-550.
- Kolk, A., & Pinkse, J. (2006). Stakeholder mismanagement and corporate social responsibility crises. *European Management Journal*, 24(1), 59-72.
- KPMG (2002), International Survey on Corporate Sustainability Reporting, University of Amsterdam, Amsterdam.
- KPMG International. (2009). *Never again ? Risk management in banking beyond the credit crisis*. Retrieved from <http://www.kpmg.com/Ca/fr/IssuesAndInsights/ArticlesPublications/Documents/Risk-management-in-banking-beyond-the-credit-crisis.pdf>
- KPMG International. (2011). Corporate sustainability: A progress report. Retrieved from

<http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/corporate-sustainability-v2.pdf>

KPMG International. (2011). Risk Management A Driver of Enterprise Value in the Emerging Environment. Retrieved February 08, 2013, from [http://www.kpmg.com/IN/en/IssuesAndInsights/ThoughtLeadership/KPMG\\_Risk\\_Management\\_Survey\\_2011\\_1.pdf](http://www.kpmg.com/IN/en/IssuesAndInsights/ThoughtLeadership/KPMG_Risk_Management_Survey_2011_1.pdf)

KPMG International. (2012). Expect the Unexpected: Building Business Value in a Changing World. Retrieved January 30, 2013, from [www.kpmg.com](http://www.kpmg.com): <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/building-business-value-part-1.pdf>.

Krysiak, F. C. (2009). Risk Management as a Tool for Sustainability. *Journal of Business Ethics*, 85(3), 483–492.

Kumar, R. (2011). *Research methodology: a step-by-step guide for beginners*. Third edition. London: Sage Publications Limited.

Kytle, B., & Ruggie, J. G. (2005). Corporate social responsibility as risk management: A model for multinationals. *Kennedy School of Government Working Paper No. 10*. Cambridge, MA: John F. Kennedy School of Government, Harvard University.

Kytle, B., & Ruggie, J. G. (2005). Corporate social responsibility as risk management: A model for multinationals. *Kennedy School of Government Working Paper No. 10*. Cambridge, MA: John F. Kennedy School of Government, Harvard University.

- Lai, F. W. (2012). A Review of Enterprise Risk Management Practices among Malaysian Public Listed Companies. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 6(8), 2030-2036.
- Lalonde, C., & Boiral, O. (2012). Managing risks through ISO 31000: A critical analysis. *Risk Management* , 272-300.
- Lam, J. (2001, April). The CRO is here to stay. *Risk Management* , pp. 16-20.
- Lam, J. (2001, April). The CRO is here to stay. *Risk Management* , pp. 16-20.
- Lam, J. (2003). *Enterprise Risk Management: From Incentives to Controls*. Hoboken, NJ: John Wiley and Sons.
- Lam, J. (2014), *Enterprise risk management: from incentives to controls*. John Wiley & Sons.
- Lam, J. (2017), *Implementing Enterprise Risk Management: From Methods to Applications*. John Wiley & Sons.
- Lam, J., & Quinn, F. (2012). The role of sustainability in enterprise risk management. *Workiva*.
- Lankoski, L., Smith, N. C., & Van Wassenhove, L. (2016). Stakeholder judgments of value. *Business Ethics Quarterly*, 26(02), 227-256.
- Laszlo, C. (2008). *Sustainable value: How the world's leading companies are doing well by doing good*. Stanford University Press.

- Laughlin, R. (1995). Empirical research in accounting: alternative approaches and a case for “middle-range” thinking. *Accounting, Auditing & Accountability Journal*, 8(1), 63-87.
- Laura Drott, Lukas Jochum, Frederik Lange, Isabel Skierka, Jonas Vach & Marjolein B.A. van Asselt (2013) Accountability and risk governance: a scenario-informed reflection on European regulation of GMOs, *Journal of Risk Research*, 16:9, 1123-1140,
- LeBlanc, B., & Kislevitz, J. (2016). Integrating Sustainability into Enterprise Risk Management. *The CPA Journal*, 86(6), 12.
- Lenssen, J. J., A. Dentchev, N., & Roger, L. (2014). Sustainability, risk management and governance: towards an integrative approach. *Corporate Governance*, 14(5), 670-684.
- Letza, S., Sun, X., & Kirkbride, J. (2004). Shareholding versus stakeholding: A critical review of corporate governance. *Corporate Governance: An International Review*, 12(3), 242-262.
- Levis, J. (2006). Adoption of corporate social responsibility codes by multinational companies. *Journal of Asian Economics*, 17(1), 50-55.
- Liebenberg, A. P., & Hoyt, R. E. (2003). The determinants of enterprise risk management: Evidence from the appointment of chief risk officers. *Risk Management and Insurance Review*, 6(1), 37-52.

- Lim, S. S., & Wang, H. (2007). The effect of financial hedging on the incentives for corporate diversification: The role of stakeholder firm-specific investments. *Journal of Economic Behavior & Organization*, 62(4), 640-656.
- Lin, Y., Wen, M. M., & Yu, J. (2012). Enterprise risk management: Strategic antecedents, risk integration, and performance, *North American Actuarial Journal*, 16(1), 1-28.
- Lin-Hi, N., & Blumberg, I. (2011). The relationship between corporate governance, global governance, and sustainable profits: lessons learned from BP. *Corporate Governance: The international journal of business in society*, 11(5), 571-584.
- Liu, J. Y., Low, S. P., & He, X. (2011). Current practices and challenges of implementing enterprise risk management (ERM) in Chinese construction enterprises. *International Journal of Construction Management*, 11(4), 49-63.
- Locklear, K. (2011). Emerging Risk: An Integrated Framework for Managing Extreme Events. *Paper presented at the 2011 Casualty Actuarial Society, Professional Risk Managers' International Association, and Society of Actuaries ERM Symposium*. Retrieved from [http://www.ermssymposium.org/2011/pdf/CP\\_Extreme-Integrated-Framework-Locklear.pdf](http://www.ermssymposium.org/2011/pdf/CP_Extreme-Integrated-Framework-Locklear.pdf).
- Locklear, K. (2012). 'Toward a theory of everything? Exploring at the edges of the ERM construct', *Paper presented at the 2012 Casualty Actuarial Society, Professional Risk Managers' International Association, and Society of Actuaries ERM Symposium*. Retrieved from

<https://web.actuaries.ie/press/erm-resource-database/toward-theory-everything-exploring-edges-erm-construct>.

Louisot, J. P., & Ketcham, C. (2014). *ERM-Enterprise Risk Management: Issues and Cases*. John Wiley & Sons.

Lubatkin, M., & Chatterjee, S. (1994). Extending modern portfolio theory into the domain of corporate diversification: does it apply?. *Academy of Management Journal*, 37(1), 109-136.

Ludin, N. a., Bakri, M. A. M., Kamaruddin, N., Sopian, K., Deraman, M. S., Hamid, N. H., ... Othman, M. Y. (2014). Malaysian oil palm plantation sector: exploiting renewable energy toward sustainability production. *Journal of Cleaner Production*, 65, 9–15.

Luis, F., Amílcar, R., Álvaro, R., Cristina, B. A., & Paulo, S. (2012). Impact of Social Responsibility Programmes in Stakeholder Satisfaction: An Empirical Study of Portuguese Managers' Perceptions. *Journal of US-China Public Administration*, 9(5), 586-590.

Lundqvist, S. A. (2014). An Exploratory Study of Enterprise Risk Management: Pillars of ERM. *Journal of Accounting, Auditing & Finance*, 29(3), 393–429.

Lydenberg, S. (2016). Integrating Systemic Risk into Modern Portfolio Theory and Practice. *Journal of Applied Corporate Finance*, 28(2), 56-61.

MacMillan, K., Money, K., Downing, S., & Hillenbrand, C. (2004). Giving your organisation SPIRIT: an overview and call to action for directors on issues of

corporate governance, corporate reputation and corporate responsibility.  
*Journal of General Management*, 30(2), 15-42.

Manab, N. A., & Kassim, I. (2012). A moderating effect of leadership on a success of enterprise-wide risk management practices. *In Proceedings of the 3<sup>rd</sup> International conference on business and Economic Research (3rd ICBER 2012) Conference*, Bandung, Indonesia.

Manab, N. A., Kassim, I., & Hussin, M. R. (2010). Enterprise-Wide Risk Management (EWRM) Practices: Between Corporate Governance Compliance and Value. *International Review of Business Research Papers*, 6(2), 239-252.

Manab, N. A., Othman, S. N., & Kassim, I. (2012). Enterprise-Wide Risk Management Best Practices: The Critical Success Factors. *OIDA International Journal of Sustainable Development*, 4(03), 87-96.

Manab, N., Hussin, M., & Kassim, I. (2013). Internal Audit Function in Relation to Enterprise-Wide Risk Management (EWRM) Practices. *International Journal of Finance*, 2(2), 61–66.

Manaf, N. A. A., Atan, R., & Mohamed, N. (2006). Environmentally sensitive companies social responsibility and reporting: a study of Malaysian companies. *In the 5th Australasian Conference on Social and Environmental Accounting Research*, Victoria University of Wellington, New Zealand.

Mănescu, C. (2011). Stock returns in relation to environmental, social and governance performance: Mispricing or compensation for risk?. *Sustainable development*, 19(2), 95-118.



- Marchetti, A. M. (2012). *Enterprise risk management best practices: from assessment to ongoing compliance*. John Wiley & Sons
- Mardjono, A. (2005). A tale of corporate governance: lessons why firms fail. *Managerial Auditing Journal*, 20(3), 272-283.
- Markowitz, H. (1952). Portfolio selection. *The Journal of Finance*, 7(1), 77-91.
- Maruhun, E. N. S., Abdullah, W. R. W., & Tarmizi, M. A. (2017). Using The PLS Modelling In Assessing The Effects Of Corporate Governance On Enterprise Risk Management And Firm Value: Malaysian Evidence, paper presented at Global Conference on Business and Economics Research (GCBER) 2017 on 14-15 August 2017, Universiti Putra Malaysia, Malaysia.
- Mateescu, R.M., Olaru, M., Sârbu, A. & Surugiu, I.F., (2016), April. Research on Increasing Risk Management Efficiency as Support for Corporate Sustainable Development. In *ICMLG2016-4th International Conference on Management, Leadership and Governance: ICMLG2016* (p. 450). Academic Conferences and Publishing limited..
- Mathern, D. (2012). Improving Stakeholder Value in Corporate Governance. *Journal of Leadership and Organizational Effectiveness*, 1(1), 45.
- Matzler, K., Bailom, F., Anschober, M., & Richardson, S. (2010). Sustaining corporate success: what drives the top performers? *Journal of Business Strategy*, 31(5), 4-13.

- Maurer, F. (2011). Creating value through enterprise risk management. *Journal of Applied Business Research (JABR)*, 25(3), 13–24. Retrieved from <http://journals.cluteonline.com/index.php/JABR/article/viewArticle/1023>
- Mayfield, P. (2014). Engaging with stakeholders is critical when leading change. *Industrial and Commercial Training*, 46(2), 68–72.
- Mazri, C. (2013). What do we really know about emerging risks? A literature review and some comments. In *International Conference on Risk Analysis and Crisis Response (RACR 2013)* (pp. 1–6).
- McCormack, P., & Sheen, A. (2013). Operational risk: Back on the agenda. *Journal of Risk Management in Financial Institutions*, 6(4), 366–386.
- McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of Management Journal*, 31(4), 854-872.
- McShane, M. K., Nair, A., & Rustambekov, E. (2011). Does enterprise risk management increase firm value? , *Journal of Accounting, Auditing & Finance*, 26(4), pp.641-658.
- Mehr, R. I., & Hedges, B. A. (1963). *Risk management in the business enterprise*. RD Irwin.
- Meier, R.L. (2000). Integrating enterprise-wide risk management concepts into industrial technology curricula. *Journal of Industrial Technology*, 16 (4), 1-15.

- Messick, S. (1995) Validity of Psychological Assessment: Validation of Inferences from Persons Responses and Performances as Scientific Inquiry into Score Meaning, *American Psychologist*, 50 (9):741-749.
- Miccolis, J. A., Hively, K., & Merkley, B. W. (2001). Enterprise risk management: Trends and emerging practices. Institute of Internal Auditors Research Foundation.
- Miccolis, J., (2003). ERM lessons across industries. Retrieved from <http://www.irmi.com/Expert/Articles/2003/Miccolis03.aspx>
- Mikes, A. (2005), "Enterprise risk management in action", *Discussion paper published by the Center for analysis of Risk and Regulation*, London School of Economics and Political Science.
- Mikes, A. (2009). 'Risk management and calculative cultures', *Management Accounting Research*, 20(1), pp.18-40.
- Mikes, A. (2011). 'From counting risk to making risk count: Boundary-work in risk management', *Accounting, Organizations and Society*, 36(4), pp.226–245.
- Mikes, A., & Kaplan, R. S. (2015). 'When One Size Doesn't Fit All: Evolving Directions in the Research and Practice of Enterprise Risk Management', *Journal of Applied Corporate Finance*, 27(1), pp.37-40.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Sage.

- Mitchell, R. K., Agle, B. R., & Wood, D. J. (1997). Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts. *Academy of management review*, 22(4), 853-886.
- Mitchell, T., & Harris, K. (2012). Resilience: A risk management approach. *ODI Background Note. Overseas Development Institute: London*.
- Modell, S. (2009). In defence of triangulation: a critical realist approach to mixed methods research in management accounting. *Management Accounting Research*, 20(3), 208-221.
- Modell, S. (2010). Bridging the paradigm divide in management accounting research: The role of mixed methods approaches. *Management Accounting Research*, 21(2), 124-129.
- Moeller, R.R., (2011). *COSO Enterprise Risk Management: Establishing Effective Governance, Risk, and Compliance (GRC) Processes* (Vol. 560). John Wiley & Sons
- Mokhtar, N., & Sulaiman, M. (2012). Environmental Reporting Practices of Malaysian Government Linked Companies (GLCs). *International Journal of Economics and Management*, 6(2): 241 – 277 (2012)
- Mokhtsim, N., & Salleh, K. O. (2014). Malaysia's Efforts toward Achieving a Sustainable Development: Issues, Challenges and Prospects. *Procedia-Social and Behavioral Sciences*, 120, 299-307.
- Morgan G. (1997) *Images of organization* (2nd ed.). Thousand Oaks, CA: Sage

- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing research*, 40(2), 120-123.
- Nafday, A. M. (2011). Consequence-based structural design approach for black swan events, *Structural Safety*, 33(1), pp.108-114.
- Nair, A., Rustambekov, E., McShane, M., & Fainshmidt, S. (2014). Enterprise Risk Management as a Dynamic Capability: A test of its effectiveness during a crisis, *Managerial and Decision Economics*, 35(8), pp.555-566.
- Narvaez, K. (2011). Success Stories: Public Entities Adopt ERM Best Practices, Public Entity Risk Institute, Fairfax, VA.
- Neef, D. (2012). *Managing corporate reputation and risk*. Routledge.
- Neuman, W. L. (2011). *Social Research Methods: Qualitative and Quantitative Approaches*. USA: Allyn and Bacon.
- Neuman, W.L. (2003). *Social Research Methods: Qualitative and Quantitative Approaches*. (5th ed.). Boston: Allyn and Bacon
- Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87(9), 56-64.
- Nigam, P., & Ramos, M., (2011). "Sustainability Risk Management". In Reuvid, J. Ed. (2011) *Managing Business Risk – a practical guide to protecting your business*. 3rd Edn. London (UK) and Philadelphia (USA): Kogan Page.
- Nikolic, S., & Miladinovski, S. (2015). The Significance of the Knowledge management and Relevant Factors of Its Implementation in the Organizations

of the Telecommunication Market in the Republic of Macedonia. *International Journal of Sciences: Basic and Applied Research (IJSBAR) Vol, 20*.

Nocco, B. W., & Stulz, R. M. (2006). Enterprise risk management: theory and practice. *Journal of Applied Corporate Finance*, 18(4), 8-20.

Northouse, P. G. (2015). *Leadership: Theory and practice*. Sage publications.

Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric theory*, 3(1), 248-292.

Omazić, M. A., & Rubčić, A. (2014). Shareholder Engagement Impact on Companies' Success in Croatia: Minority Report. In *Rethinking Corporate Governance*. Pearson.

Omolade, O. O., & Tony, O. A. (2014). "Entrepreneurship and management practice in Nigeria: One and two sides of a coin?". *International Journal in Management & Social Science*, 2(2), 56-73.

Orlitzky, M. (2013) "Corporate social responsibility, noise, and stock market volatility". *The Academy of Management Perspectives*, 27(3), 238-254.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. *Organization studies*, 24(3), 403-441.

Olson, D. L., & Wu, D. D. (2017). Sustainability and Enterprise Risk Management. In *Enterprise Risk Management Models*(pp. 193-204). Springer Berlin Heidelberg.

- Ow-Yong, K., & Kooi Guan, C. (2000). Corporate governance codes: A comparison between Malaysia and the UK. *Corporate Governance: An International Review*, 8(2), 125-132.
- Paape, L., & Speklè, R. F. (2012). The adoption and design of enterprise risk management practices: An empirical study. *European Accounting Review*, 21(3), 533-564.
- Pagach, D., & Warr, R. (2007). An empirical investigation of the characteristics of firms hiring chief risk officers. *Working paper*, North Carolina State University.
- Pagach, D., & Warr, R. (2011). The characteristics of firms that hire chief risk officers. *Journal of Risk and Insurance*, 78(1), 185-211.
- Pagell, M., & Shevchenko, A. (2014). Why research in sustainable supply chain management should have no future. *Journal of supply chain management*, 50(1), 44-55.
- Parija, S., Williams, W., Zavatsky, D., & McGuire, R. (2010). Emerging Risks and Enterprise Risk Management. Retrieved from [https://www.rims.org/resources/ERM/Documents/EmergingRisk\\_ERMweb.pdf](https://www.rims.org/resources/ERM/Documents/EmergingRisk_ERMweb.pdf)
- Pass, C. (2004). Corporate governance and the role of non-executive directors in large UK companies: an empirical study. *Corporate Governance: The international journal of business in society*, 4(2), 52-63.

- Pathak, J., Karim, K. E., & Carter, C. (2013). Why do enterprise risk management systems fail? Evidence from a case study of AIG. *International Journal Applied Decision Sciences*, 6(2013), 345–371.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. Sage Publications.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Sage Publications.
- Pearce, C. L., & Wassenaar, C. L. (2014). Leadership is like fine wine: It is meant to be shared, globally. *Organizational Dynamics*, 43(1), 9-16.
- Pedersen, E. R. (2006). Making corporate social responsibility (CSR) operable: How companies translate stakeholder dialogue into practice. *Business and Society Review*, 111(2), 137-163.
- Peloza, J., Loock, M., Cerruti, J., & Muyot, M. (2012). Sustainability. *California Management Review*, 55(1), 74-97.
- Perrini, F., & Tencati, A. (2006). Sustainability and stakeholder management: the need for new corporate performance evaluation and reporting systems. *Business Strategy and the Environment*, 15(5), 296-308.
- Petersen, H. G., & Wiegmann, A. M. (2013). Risk Taking, Principal Agent Problems and Breakdown of Corporate Social Responsibility (CSR): How to Reestablish Safe-Assets and Capital Funding for Social Security?. *Equilibrium*, 8(2), 7.



- Peylo, B. T. (2012). A synthesis of modern portfolio theory and sustainable investment. *The Journal of Investing*, 21(4), 33-46.
- Pfau, M., Haigh, M. M., Sims, J., & Wigley, S. (2008), The influence of corporate social responsibility campaigns on public opinion, *Corporate Reputation Review*, 11(2), 145-154.
- Pojasek, R. B. (2011). Linking sustainability to risk management. *Environmental Quality Management*, 21(2), 85-96
- Pollard, D., & Stephen, D. W. (2008). Sustainability , Risk and Opportunity : A Holistic Approach. Toronto. Retrieved from <http://www.accountingforsustainability.org/wp-content/uploads/2011/10/CICA-A-Holistic-Approach-Report.pdf>
- Porter, M. E., & Kramer, M. R. (2006). Strategy and society: the link between corporate social responsibility and competitive advantage. *Harvard business review*, 84(12), 78-92.
- Post, J. E., Sachs, S., & Preston, L. E. (2002). Managing the extended enterprise: The new stakeholder view. *California Management Review*, 45(1), 6-28.
- Power, M. (2003). Risk management and the responsible organization (pp. 145-164). University of Toronto Press.
- Power, M. (2004). 'The risk management of everything', *The Journal of Risk Finance*, 5(3), pp.58-65.
- Power, M. (2009). 'The risk management of nothing', *Accounting, Organizations and Society*, 34(6), pp.849-855.

PricewaterhouseCoopers (2003), ICBI Risk Management 2003 Conference, Geneva, Switzerland.

PricewaterhouseCoopers, Llp. (2012). Rethinking risk management for new market realities, (March). Retrieved from <http://www.pwc.com/us/en/risk-assurance-services/publications/rethinking-risk-management-for-new-market-realities.jhtml>

PricewaterhouseCoopers. (2004). Managing risk: An assessment of CEO perspectives. New York.

PricewaterhouseCoopers. (2009). Extending Enterprise Risk Management (ERM) to Address Emerging Risks. Retrieved from [http://www.pwc.com/us/en/sap-implementation/assets/exploring\\_emerging\\_risk.pdf](http://www.pwc.com/us/en/sap-implementation/assets/exploring_emerging_risk.pdf)

Pricewaterhousecoopers. (2013). Black swans turn grey : The transformation of risk. Retrieved from [http://www.pwccn.com/webmedia/doc/635116518906857384\\_ia\\_risk\\_transformation\\_aug2013.pdf](http://www.pwccn.com/webmedia/doc/635116518906857384_ia_risk_transformation_aug2013.pdf)

Pricewaterhousecoopers. (2014). *Resilience: A journal of strategy and risk*. Retrieved from <https://www.pwc.com/gx/en/governance-risk-compliance-consulting-services/resilience/publications/pdfs/resilience-social.pdf>

Protiviti Inc. (2014). Establishing and Nurturing an Effective Risk Culture: Enabling the Chief Risk Officer's Success (pp. 1–25). Retrieved from <http://www.protiviti.com/en-US/Documents/White-Papers/Risk-Solutions/CRO-Series4-Establishing-and-Nurturing-an-Effective-Risk-Culture-Protiviti.pdf>

- Przychodzen, J., & Przychodzen, W. (2013), Corporate sustainability and shareholder wealth, *Journal of Environmental Planning and Management*, 56(4), 474-493.
- Purdy, G., & Lark, J. (2012). Enhance Your Risk Management and Create Value. Retrieved from [http://www.trm.ca/media\\_lib/TRM\\_Perspectives/Risk\\_Watch\\_May\\_2012\\_Lark\\_Purdy.pdf](http://www.trm.ca/media_lib/TRM_Perspectives/Risk_Watch_May_2012_Lark_Purdy.pdf)
- Rahardjo, H., Idrus, M. S., Hadiwidjojo, D., & Aisjah, S. (2013). Factors that determines the success of corporate sustainability management. *Journal of Management Research*, 5(2), 1-16.
- Ranger, N., Harvey, A., & Garbett-Shiels, S. L. (2014). Safeguarding development aid against climate change: evaluating progress and identifying best practice. *Development in Practice*, 24(4), 467-486.
- Rasche, A., & Kell, G. (Eds.). (2010). *The United Nations global compact: Achievements, trends and challenges*. Cambridge University Press.
- Rasiah, D. (2012). Post-modern portfolio theory supports diversification in an investment portfolio to measure investment's performance. *Journal of Finance and Investment Analysis*, 1(1), 69-91.
- Rasid, S. Z. A., Golshan, N., Wan, K. W. I., & Ahmad, F. S. (2012). Risk Management, Performance Measurement and Organizational Performance: A Conceptual Framework. *Paper presented at 3rd International Conference on Business and Economics Research (3rd ICBER)*, Bandung, 12-13 March 2012.

- Razali, A. R., & Tahir, I. M. (2011). Review of the literature on enterprise risk management. *Business management dynamics*, 1(5), 8-16.
- Reinke, S. J. (2004). Service before self: Towards a theory of servant-leadership. *Global Virtue Ethics Review*, 5(3), 30.
- Renn, O. (2014). Emerging risks: Methodology, classification and policy implications. *Journal of Risk Analysis and Crisis Response*, 4(3), 114-132.
- Renukappa, S., Egbu, C., Akintoye, A., & Goulding, J. (2012). A critical reflection on sustainability within the UK industrial sector. *Construction Innovation: Information, Process, Management*, 12(3), 317-334.
- Rezaee, Z. (2015). *Business sustainability: Performance, compliance, accountability and integrated reporting*. Greenleaf Publishing.
- Richter, C. (2012). Development of a Risk Culture Intensity Index to Evaluate the Financial Market in Germany. In *Proceedings of FIKUSZ '14 Symposium for Young Researchers*, 2014 (pp. 237–248).
- RIMS (2010). RIMS Enterprise Risk Management (ERM) Survey, August 2010
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.). (2013). *Qualitative research practice: A guide for social science students and researchers*. London: Sage.
- Rizzi, J., Simkins, B. J., & Schoening-thiessen, K. (2011). Enterprise Risk Management: A Review of Prevalent Practices. Ottawa: Conference Board of Canada.

- Robson, C. (2002), *Real World Research*, 2nd ed., Blackwell, Oxford.
- Rochette, M. (2009). From risk management to ERM. *Journal of Risk Management in Financial Institutions*, 2(4), 394-408.
- Roeschmann, A. Z. (2014). Risk culture: What it is and how it affects an insurer's risk management. *Risk Management and Insurance Review*, 17(2), 277-296.
- Rom, B. M., & Ferguson, K. W. (1994). Post-modern portfolio theory comes of age. *The Journal of Investing*, 3(3), 11-17.
- Rose, C., & Thomsen, S. (2004). The Impact of Corporate Reputation on Performance:: Some Danish Evidence. *European Management Journal*, 22(2), 201-210.
- Rosen, D., & Zenios, S.A. (2001) Enterprise-wide asset and liability management: issues, institutions, and models. *Nicosia, Cyprus: HERMES Center on Computational Finance & Management*, University of Cyprus.
- Rossi, C. L. (2010). Compliance: an over-looked business strategy. *International Journal of Social Economics*, 37(10), 816–831.
- Roth, J. (2007). ‘Myth vs Reality: Sarbanes–Oxley and ERM’. *Internal Auditor* 64, pp. 55–60.
- Roth, J., Espersen, D., Swanson, D., & Sobel, P. (2007). *Four Approaches to Enterprise Risk Management:--and Opportunities in Sarbanes-Oxley Compliance*. Institute of Internal Auditors Research Foundation (IIARF).

- Rubčić, A., & Omazić, M. A. (2013), Shareholders Activism Impact on Companies's Success in Croatia. *In 1st International OFEL Conference on Corporate Governance-Organizational, Financial, Ethical and Legal Issues of Corporate Governance.*
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage.
- Rudolph, M. J. (2011). Evolution of Emerging Risks. *Risk Management*, (Issue 22), Retrieved from <https://www.soa.org/library/newsletters/risk-management-newsletter/2011/august/jrm-2011-iss22-rudolph.pdf>
- Rudolph, M. J. (2013). Emerging Risks Survey 2013. Retrieved from <https://www.soa.org/Files/Research/Projects/research-2014-emerging-risk-survey.pdf>
- Saardchom, N. (2013). Enterprise Risk Management under Sustainability Platform. *Journal of Business and Economics*, 4(1), 32-41.
- Sabato, G. (2010). Financial crisis: where did risk management fail?. *International Review of Applied Financial Issues and Economics*, (2), 315-327.
- Sadgrove, M. K. (2015). *The complete guide to business risk management*. Gower Publishing Ltd, Surrey, England.
- Sammer, J. (2004). Companies migrating from SOX “myopia” to risk management. *Compliance Week* (November), 1, 26-28.

- Sangle, S., & Ram Babu, P. (2007). Evaluating sustainability practices in terms of stakeholders' satisfaction. *International Journal of Business Governance and Ethics*, 3(1), 56-76.
- Sarantakos, S. (1994), *Social Research*, London: Sage.
- Sarkis, J., Helms, M. M., & Hervani, A. A. (2010). Reverse logistics and social sustainability. *Corporate Social Responsibility and Environmental Management*, 17(6), 337-354.
- Saunders, M. N., Saunders, M., Lewis, P., & Thornh, A. (2011). *Research Methods For Business Students*. Pearson Education India.
- Scandizzo, S. (2011). A framework for the analysis of reputational risk. *The Journal of Operational Risk*, 6(3), 41.
- Scheaffer, R. L., Mendenhall III, W., Ott, R. L., & Gerow, K. G. (2012). *Elementary survey sampling*. Cengage Learning.
- Schneper WD, Guillén M (2004) Stakeholders rights and corporate governance: A cross-national study of hostile takeovers. *Admin. Sci. Quart.* 49(2):263–295.
- Schneper, W. D., & Guillén, M. F. (2004). Stakeholder rights and corporate governance: A cross-national study of hostile takeovers. *Administrative Science Quarterly*, 49(2), 263-295.
- Securities Commission. (2012). *Malaysian code on corporate governance 2012*. Kuala Lumpur: Securities Commission.

- Securities Commission. (2016). *Public Consultation Paper No. 2/2016: Proposed Draft of the Malaysian Code on Corporate Governance 2016*, Vol. 2010. Retrieved from <https://www.icgn.org/sites/default/files/ICGN>
- Segal, S. (2011). *Corporate value of enterprise risk management: The next step in business management* (vol. 3). John Wiley & Sons, Hoboken, New Jersey.
- Sekaran, U. (2006). *Research methods for business: A skill building approach*. Wiley. com.
- Shaluf, I. M., Ahmadun, F. L. R., & Mat Said, A. (2003). A review of disaster and crisis, *Disaster Prevention and Management: An International Journal*, 12(1), pp.24-32.
- Sharfman, M. P., & Fernando, C. S. (2008). Environmental risk management and the cost of capital. *Strategic Management Journal*, 29, 569–592.
- Sharma, S. (2000). Managerial interpretations and organizational context as predictors of corporate choice of environmental strategy. *Academy of Management Journal*. 43(4).681-697.
- Sharpe, W. F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *The Journal of Finance*, 19(3), 425-442.
- Shavelson, R. J., & Towne, L. (Eds.). (2002). *Scientific research in education*. National Academies Press.
- Sheedy, E. (2016). Risk management: Risk governance and culture. *Governance Directions*, 68(1), 19.



- Sheehan, N. T. (2009). Making risk pay: the board's role. *Journal of Business Strategy*, 30(1), 33-39.
- Shenkir, W. G., and P. L. Walker. (2011). *Enterprise Risk Management: Frameworks, Elements and Integration*. Montvale, NJ: Institute of Management Accountants.
- Sison, A.G. (2008), *Corporate Governance and Ethics: An Aristotelian Perspective*, Edward Elgar, Cheltenham, UK, Northampton, MA.
- Skipper, H. D. (1997). *Foreign insurers in emerging markets: Issues and concerns*. International Insurance Foundation.
- Slack, K. (2012). Mission impossible?: Adopting a CSR-based business model for extractive industries in developing countries. *Resources Policy*, 37(2), 179-184.
- Slywotzky, A.J., & Drzik, J. (2005). Countering the Biggest Risk of All. *Harvard Business Review*, 83(4), 78-88.
- Smith, D., & Fischbacher, M. (2009). The changing nature of risk and risk management: The challenge of borders, uncertainty and resilience. *Risk management*, 11(1), 1-12.
- Soleimani, A., Schnepfer, W. D., & Newbury, W. (2014). The impact of stakeholder power on corporate reputation: A cross-country corporate governance perspective. *Organization Science*, 25(4), 991-1008.

- Soltanizadeh, S., Rasid, S. Z. A., Golshan, N., Quoquab, F., & Basiruddin, R. (2014). Enterprise risk management practices among Malaysian firms. *Procedia-Social and Behavioral Sciences*, 164, 332-337.
- Soyka, P. A. (2012). *Creating a sustainable organization: Approaches for enhancing corporate value through sustainability*. FT Press.
- Spedding, L. S., & Rose, A. (2008). *Business risk management handbook: A sustainable approach*. Elsevier Ltd, UK.
- Sprčić, D. M., Žagar, M. M., Šević, Ž., & Marc, M. (2016). Does enterprise risk management influence market value—A long-term perspective. *Risk Management*, 18(2-3), 65-88.
- Standard & Poor's. (2010). Standard & Poor's Looks Further Into How Nonfinancial Companies Manage Risk (pp. 1–6). Retrieved from [http://www.qsp.org.br/pdf/Corporates\\_ERM\\_FAQ\\_06\\_24\\_10.pdf](http://www.qsp.org.br/pdf/Corporates_ERM_FAQ_06_24_10.pdf)
- Standard & Poor's, (2007) “Criteria: Summary of Standard & Poor's Enterprise Risk Management Evaluation Process for Insurers,” *Ratings Direct*.
- Steinberg, R. M. (2011). *Governance, risk management, and compliance: it can't happen to us—avoiding corporate disaster while driving success*. Hoboken, NJ, USA: John Wiley & Sons, Inc.
- Stoughton, A. M., & Ludema, J. (2012). The driving forces of sustainability. *Journal of Organizational Change Management*, 25(4), 501-517.
- Stulz, R. M. (2008). Risk management failures: What are they and when do they happen?. *Journal of Applied Corporate Finance*, 20(4), 39-48.

- Subramaniam, N., Wahyuni, D., Cooper, B. J., Leung, P., & Wines, G. (2015). Integration of carbon risks and opportunities in enterprise risk management systems: evidence from Australian firms. *Journal of Cleaner Production*, 96, 407-417.
- Sweeting, P. (2011). *Financial enterprise risk management*. Cambridge University Press.
- T. Neff, (2007), "Proof that Cos. Can Go From SOX to ERM", *Compliance Week*.
- Taleb, N. N. (2007). 'Black swans and the domains of statistics', *The American Statistician*, 61(3), pp.198-200.
- Tan, W. L., & Tan, T. M. (2004). The impact of corporate governance on value creation in entrepreneurial firms. *Rencontres de St-Gall 2004, Appenzell*.
- Tashakkori, A., & Teddlie, C. . (2003). *Handbook of mixed methods in social & behavioral research*. Sage.
- Taylor, A. (2010, July). Using the lever of leadership to drive environmental change: Ten tips for practitioners. *In Proceedings of the Enviro 2010 Conference* (pp. 1-9).
- Thanasegaran, G. (2009). Reliability and validity issues in research. *Integration & Dissemination*, 4, 35-40.
- Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. *BMC medical research methodology*, 8(1), 45.

- Thomas, R. M. (2003). *Blending qualitative and quantitative research methods in theses and dissertations*. Corwin Press.
- Thomsen, S. (2000). An examination of nonresponse in a work environment questionnaire mailed to psychiatric health care personnel. *Journal of Occupational Health Psychology*, 5(1), 204.
- Todoni, M. D. (2015). A Post-Modern Portfolio Management Approach on CEE Markets. *Procedia Economics and Finance*, 32, 1362-1376.
- Towers Perrin, (2008) *Assessing Your Company's Risk Culture*. New York: Towers Perrin
- Tricker, R. I. (2015). *Corporate governance: Principles, policies, and practices*. Oxford University Press, USA.
- Van Asselt, M. B., & Renn, O. (2011). Risk governance. *Journal of Risk Research*, 14(4), 431-449.
- Van der Stede, W. A. (2009) Enterprise Governance, *Financial Management* (February), 38-40.
- Vanclay, F. (2005). The triple bottom line and impact assessment: how do TBL, EIA, SIA, SEA and EMS relate to each other? *Journal of Environmental Assessment Policy and Management*, 6(3), 265-288.
- Waas, T., Hugé, J., Verbruggen, A., & Wright, T. (2011). Sustainable development: A bird's eye view. *Sustainability*, 3(10), 1637-1661.

- Wagner, D., & Disparte, D. (2016). Risk Management in a Global World. In *Global Risk Agility and Decision Making* (pp. 3-16). Palgrave Macmillan UK.
- Wahab, E. A. A., How, J., & Verhoeven, P. (2008). Corporate governance and institutional investors: evidence from Malaysia. *Asian Academy of Management Journal of Accounting and Finance*, 4(2), 67-90.
- Watson, H., & Head, T. (1998). *Corporate finance principles and practice*. London: Financial Time Management.
- Waweru, N., & Kisaka, E. S. (2011). The Effect of Enterprise Risk Management Implementation on the Value of Companies Listed in the Nairobi Stock Exchange. Retrieved at [https://web.actuaries.ie/sites/default/files/erm-resources/25\\_ERM\\_value\\_Nairobi\\_stock\\_exchange.pdf.pdf](https://web.actuaries.ie/sites/default/files/erm-resources/25_ERM_value_Nairobi_stock_exchange.pdf.pdf)
- White, L., & Lee, G. J. (2009). Operational research and sustainable development: Tackling the social dimension. *European Journal of Operational Research*, 193(3), 683-692.
- White, M.A., (2013). Sustainability: I know it when I see it, *Ecology Economics*. 86, 213-217.
- Whitman, A. F. (2015). Is ERM Legally Required? Yes for Financial and Governmental Institutions, No for Private Enterprises. *Risk Management and Insurance Review*, 18(2), 161–197.
- Wieland, J. (2005). Corporate governance, values management, and standards: a European perspective. *Business & Society*, 44(1), 74-93.

- Williams, C., and Conley, J. (2005). Is there an emerging fiduciary duty to consider human rights? *University of Cincinnati Law Review*, 74(1), 75-104.
- Wilmshurst, T. D. & Frost, G. R. (2000), Corporate environmental reporting: a test of legitimacy theory, *Accounting, Auditing and Accountability Journal*, 13(1), 10-26.
- Wong, A. (2014), Corporate sustainability through non-financial risk management, *Corporate Governance*, 14(4), 575-586.
- World Business Council for Sustainable Development. (2013). Getting Sustainability Risks onto Management's Agenda. Retrieved from <http://www.wbcsd.org/Pages/Adm/Download.aspx?ID=8654&ObjectTypeId=7>.
- World Business Council for Sustainable Development. (2017). *Sustainability and enterprise risk management: The first step towards integration*. Retrieved from <http://www.wbcsd.org/contentwbc/download/2548/31131>.
- World Commission on Environment and Development (WCED). (1987). *Our Common Future*. New York: Oxford University Press.
- World Economic Forum. (2016). *The Global Risks Report 2016 11th Edition. Insight Report*. Retrieved from [http://www3.weforum.org/docs/GRR/WEF\\_GRR16.pdf](http://www3.weforum.org/docs/GRR/WEF_GRR16.pdf)
- World Economic Forum. (2017). *The Global Risks Report 2017 12th Edition. Insight Report*. Retrieved from [http://www3.weforum.org/docs/GRR/WEF\\_GRR16.pdf](http://www3.weforum.org/docs/GRR/WEF_GRR16.pdf)

- Wu, D., & Olson, D. L. (2010). Enterprise risk management: coping with model risk in a large bank. *Journal of the Operational Research Society*, 61(2), 179-190.
- Wu, D., Olson, D. L., & Dolgui, A. (2015). Decision making in enterprise risk management: A review and introduction to special issue. *Omega*, 57, 1–4.
- Yazid, A. S., Razali, A. R., & Hussin, M. R. (2012). Determinants of enterprise risk management (ERM): A proposed framework for Malaysian public listed companies. *International Business Research*, 5(1), 80-86.
- Yilmaz, A. K., & Flouris, T. (2010). Managing corporate sustainability: Risk management process based perspective. *African journal of business management*, 4(2), 162-171.
- Yin, R. (1994). *Case study research: Design and methods* . Beverly Hills.
- Yin, R. K. (2009). *Case study research: Design and methods*. Sage Publication.
- Zainal Abidin, N. A., & Ahmad, H. (2007). Corporate governance in Malaysia: The effect of corporate reforms and state business relation in Malaysia. *Asian Academy of Management Journal*, 12(1), 23-34.
- Zandstra, G. (2002). Enron, board governance and moral failings. *Corporate Governance: The international journal of business in society*, 2(2), 16-19.
- Zhao, X., Hwang, B. G., & Low, S. P. (2015). Enterprise risk management in international construction firms: drivers and hindrances. *Engineering, Construction and Architectural Management*, 22(3), 347-366.

Zikmund, W. G., Carr, J. C., & Griffin, M. (2012). *Business research methods*.

CengageBrain.Com





## **Appendix A: Questionnaire**

Dear Sir/Madam,

### **Questionnaire on the Practice of Sustainability Risk Management (SRM) among the Malaysian Listed Companies.**

Sustainability Risk Management (SRM) is an extension to Enterprise Risk Management (ERM) program which manages the broad spectrum of unknown and emerging risks deriving from sustainability issues with the purpose of achieving corporate survival. SRM accommodate the environmental and social risks which seems to be unfamiliar in the ERM due to the nature of these risks are multifaceted and outside the organisation's control.

The main objective of this research is to examine to what extent the integration of sustainability in the ERM having an impact on the corporate survival in the manufacturing sector of public listed companies (PLCs) in Malaysia. The questionnaire should take less than 30 minutes to complete.

#### ***Confidentiality***

All information will be treated as highly CONFIDENTIAL and used for academic purposes only. The names of your organisations and participants will not be disclosed in any report.

#### ***Instruction for completion***

Please complete the questionnaire. We hope that your response will reflect the actual practice in your organisation.

Your cooperation is highly appreciated. Data collected through this questionnaire will provide vital information on the practice of SRM in the publicly listed companies (PLCs). Thank you in advance for your precious time and cooperation.

## SUSTAINABILITY RISK MANAGEMENT (SRM) PRACTICES

Please complete all the following questions. Please answer each question by ticking on the appropriate boxes.

### Part A: Company's Background

1. Please indicate your industry

- ☐ Manufacturing                      ☐ Other (Please specify) \_\_\_\_\_  
☐ Construction  
☐ Plantation  
☐ Oil and Gas

2. Please indicate the total employees in your company

- ☐ 50-100 employees                      ☐ 101-200 employees  
☐ 201-300 employees                      ☐ 301-400 employees  
☐ 401-500 employees                      ☐ 501 and above

### Part B: Risk Management Practices

The purpose of this section is to identify the level of risk management / ERM practices in your organisation. Please answer each question by ticking on the appropriate boxes.

1. When does your organisation implement risk management program?  
☐ Month                      ☐ Year
2. What is the status of implementation of risk management program in your organisation?  
☐ Early stage of ERM implementation  
☐ Partially implemented ERM program across business segments.  
☐ Fully implemented ERM program across organisation.
3. What were the motivations that lead the organisation to adopt the risk management / SRM program? Please select your top five (5) priorities.
- ☐ Good business practice.  
☐ Improve risk-based decision making  
☐ Comply with regulatory.  
☐ Technology advancement  
☐ Comply with corporate governance standards  
☐ Occurrence of unexpected risks events  
☐ Corporate reputation  
☐ Request by the Board of Directors (BOD)  
☐ Operational effectiveness

- ☐ Enhancing the shareholder value
- ☐ Competition
- ☐ Stakeholder pressure
- ☐ Value-added function
- ☐ Other (Please specify)\_\_\_\_\_

4. What are the potential barriers that your organisation facing in implementing the SRM / risk management program?

- ☐ Lack of tools in risk oversight
- ☐ Lack of appropriate technology
- ☐ Lack of sufficient resources
- ☐ Lack of support from top management
- ☐ Lack of understanding of the major components of effective enterprise risk approach
- ☐ Lack of risk management expertise
- ☐ Not perceived as a priority in the organisation
- ☐ Organisational culture
- ☐ Other (Please specify)\_\_\_\_\_

#### **Part C: Sources of Environmental and Social Risk**

The purpose of this section is to identify the sources of environmental and social risks. Please answer each question by ticking on the appropriate boxes.

1. Which are the sources of environmental and social risks that represent the greatest potential threats in your organization? Please select the top THREE (3) priorities.

- ☐ Greenhouse gas emissions
- ☐ Extreme weather events
- ☐ Water crises
- ☐ Climate change
- ☐ Natural catastrophe
- ☐ Natural resources depletion
- ☐ Biodiversity loss
- ☐ Pandemic
- ☐ Food security
- ☐ Other (Please specify)\_\_\_\_\_

#### **Part D: Sustainability Risk Management (SRM) Key Factors**

The purpose of this section is to examine the key factors that supports your SRM program. Please answer each question by ticking on the appropriate boxes.

1. Who has primary responsibility for managing risk management program in your organisation?

- ☐ Chief Executive Officer (CEO)
- ☐ Chief Financial Officer (CFO)
- ☐ Chief Risk Officer / Risk Manager.
- ☐ Board of Directors (BOD)
- ☐ Other, please specify\_\_\_\_\_

2. These questions focus on the role of **leadership** that supports your SRM program. Please rate each statement between 1 = Strongly Disagree, 2= Disagree, 3= Indifferent 4 = Agree and 5 = Strongly Agree

	1	2	3	4	5
Engagement with internal and external stakeholders in risk decision making	[ ]	[ ]	[ ]	[ ]	[ ]
Board devotes sufficient focus to the sustainability related risks and opportunities.	[ ]	[ ]	[ ]	[ ]	[ ]
Board effective oversight the sustainability risk identification and mitigation.	[ ]	[ ]	[ ]	[ ]	[ ]
Senior managers have sufficient knowledge and skills in managing sustainability risks.	[ ]	[ ]	[ ]	[ ]	[ ]
Senior management team develop strategies to respond to the sustainability related risks ad opportunities.	[ ]	[ ]	[ ]	[ ]	[ ]
Senior management team ensures the boards responds to the sustainability issues.	[ ]	[ ]	[ ]	[ ]	[ ]

3. These questions are pertaining to the organisational **risk culture** that supports your SRM program. Please rate each statement between 1 = Strongly Disagree, 2= Disagree, 3= Indifferent, 4 = Agree and 5 = Strongly Agree

	1	2	3	4	5
Company consistently obtain tone at the top regarding risk.	[ ]	[ ]	[ ]	[ ]	[ ]
Employees understand and accept that risk management is a part of everyone's role and responsibility.	[ ]	[ ]	[ ]	[ ]	[ ]

Employees have sufficient knowledge and skills to manage risk.	[ ]	[ ]	[ ]	[ ]	[ ]
Clearly articulate risk appetite and desirable risk-taking activities.	[ ]	[ ]	[ ]	[ ]	[ ]
Company considers the financial, environmental, and social aspects in a risk decision making.	[ ]	[ ]	[ ]	[ ]	[ ]
The organization establishes and promotes long-term interests with a risk-focused incentives.	[ ]	[ ]	[ ]	[ ]	[ ]

4. These questions are pertaining to the **risk governance** that supports your SRM program. Please rate each statement between 1 = Strongly Disagree, 2= Disagree, 3= Indifferent, 4 = Agree and 5 = Strongly Agree

	1	2	3	4	5
Emerging risks identification are embedded into the ERM strategy	[ ]	[ ]	[ ]	[ ]	[ ]
Emerging risks are determined relevant to the enterprise-wide objectives.	[ ]	[ ]	[ ]	[ ]	[ ]
The interconnectedness between emerging risks and other risks are evaluated.	[ ]	[ ]	[ ]	[ ]	[ ]
Involvement of employees from all business units in the company in identifying emerging risks	[ ]	[ ]	[ ]	[ ]	[ ]
Anticipating the implication of emerging risks to the business	[ ]	[ ]	[ ]	[ ]	[ ]
Company embrace a strong governance practices in managing emerging risks.	[ ]	[ ]	[ ]	[ ]	[ ]

5. These questions are pertaining to the **compliance** that supports your SRM program. Please rate each statement between 1 = Strongly Disagree, 2= Disagree, 3= Indifferent, 4 = Agree and 5 = Strongly Agree

	1	2	3	4	5
Compliance culture within the organization is promoted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The development of new products and markets comply with the regulations and codes of conduct.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compliance policies and procedures are well-developed and articulated.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The personnel are well-educated on the compliance matters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Preventive measures and control are carried out by the company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrective measures and control are carried out by the company.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Employee training program on the environmental and social procedures are conducted.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Part E: Impact of SRM Implementation on the Corporate Survival

The purpose of this section is to examine the impact of SRM implementation on the corporate survival in your organisation. Please answer each question by ticking on the appropriate boxes.

1. These questions deal with the extent to which you believe the risk management program has an impact on the sustainability of the organisation. Please rate each statement between 1 = Strongly Disagree, 2= Disagree, 3= Indifferent, 4 = Agree and 5 = Strongly Agree

	1	2	3	4	5
Integrating sustainability in ERM program as a means of generating long-term shareholder returns.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Integrating sustainability in ERM program as a means of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

preserving corporate image.	[ ]	[ ]	[ ]	[ ]	[ ]
Integrating sustainability in ERM program as means of gaining competitive advantage.	[ ]	[ ]	[ ]	[ ]	[ ]
Integrating sustainability in ERM program helps to improve operational performance and efficiency.	[ ]	[ ]	[ ]	[ ]	[ ]
Integrating sustainability in ERM program as means of satisfying the stakeholder's interest.	[ ]	[ ]	[ ]	[ ]	[ ]
Integrating sustainability in an ERM program as a means of improving triple bottom line (economic, environmental and social) performance.	[ ]	[ ]	[ ]	[ ]	[ ]

If there are any comments you would like to make regarding this survey, please do so in the space provided below

---



---



---



---



---

Is your company willing to be the case study participant in this research?

- ☐ Yes  
☐ No

#### Part F: Personal and Company Background Information

NAME:  
COMPANY'S NAME:  
TELEPHONE:  
FAX:  
EMAIL:  
DESIGNATION:  
LENGTH OF SERVICES:

*Thank you for taking the time to complete this questionnaire.  
Your assistance in providing this information is very much appreciated*

## Appendix B: Factor Analysis

### Factor Analysis SRM Key Factors (Independent Variable)

Variable	Factor 1	Factor 2	Factor 3	Factor 4
<b>Leadership</b> <ul style="list-style-type: none"> <li>Board devotes sufficient focus to the sustainability related risks and opportunities.</li> <li>Board effective oversight the sustainability risk identification and mitigation.</li> <li>Senior managers have sufficient knowledge and skills in managing sustainability risks.</li> <li>Senior management team develop strategies to respond to the sustainability related risks and opportunities.</li> <li>Senior management team ensures the boards responds to the sustainability issues.</li> <li>Engagement with internal and external stakeholders in risk decision making</li> </ul>	.806  .872  .742  .736  .617  .616			
<b>Compliance</b> <ul style="list-style-type: none"> <li>Compliance culture within the organization is promoted.</li> <li>Compliance policies and procedures are well-developed and articulated.</li> <li>The personnel are well-educated on the compliance matters.</li> <li>Preventive measures and control are carried out by the company.</li> <li>Corrective measures and control are carried out by the company.</li> <li>Employee training program on the environmental and social procedures are conducted.</li> </ul>		.828  .710  .679  .518  .498  .419		
<b>Organisational risk culture</b> <ul style="list-style-type: none"> <li>Clearly articulate risk appetite and desirable risk-taking activities.</li> <li>Company consistently obtain tone at the top regarding risk.</li> <li>Employees understand and accept that risk management is a part of everyone's role and responsibility</li> <li>Company considers the financial, environmental, and social aspects in a</li> </ul>			.725  .661  .657  .549  .411	



<p>risk decision making.</p> <ul style="list-style-type: none"> <li>Company establishes and promotes long-term interests with a risk-focused incentive.</li> </ul>				
<p>Risk governance</p> <ul style="list-style-type: none"> <li>Emerging risks are determined relevant to the enterprise-wide objectives.</li> <li>Involvement of employees from all business units in the company in identifying emerging risks</li> <li>Anticipating the implication of emerging risks to the business</li> <li>Company embrace a strong governance practices in managing emerging risks.</li> </ul>				.878
				.566
				.549
				.519
Eigenvalues	14.794	1.951	1.482	1.246
Cronbach alpha	0.867	0.870	0.881	0.893

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.858
Bartlett's Test of Sphericity	Approx. Chi-Square	1380.872
	df	351
	Sig.	.000

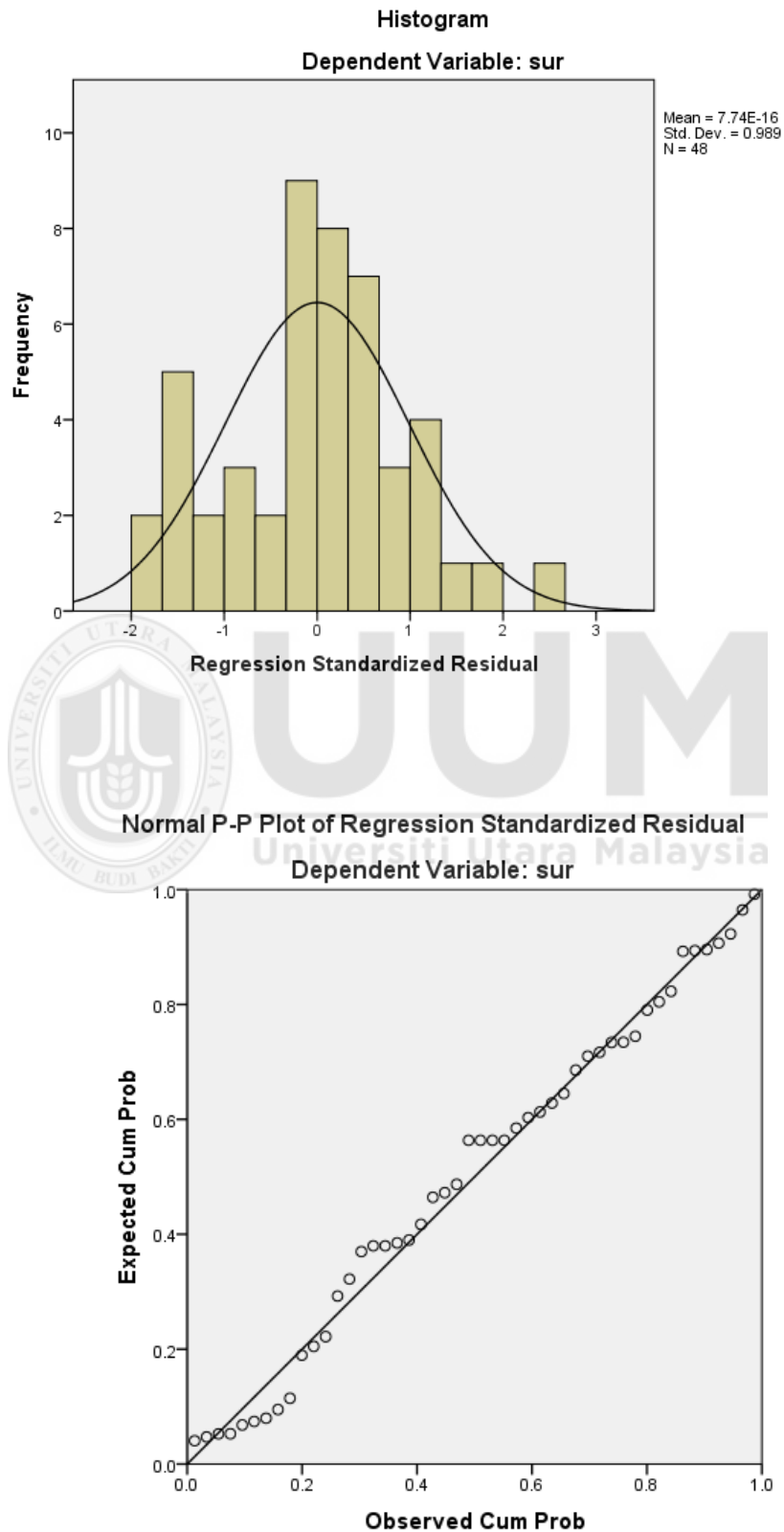
#### Factor Analysis Corporate Survival (Dependent Variable)

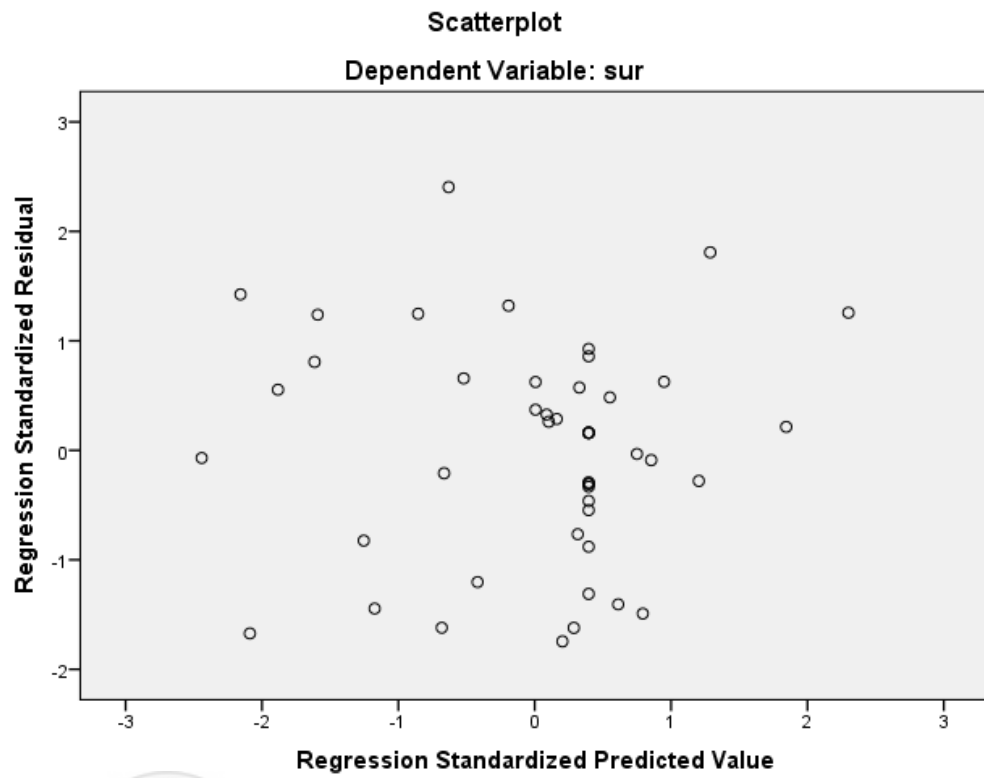
Variable	Factor 1	Factor 2
<p>Corporate reputation</p> <ul style="list-style-type: none"> <li>Corporate image</li> <li>Competitive advantage.</li> <li>Operational performance and efficiency</li> <li>Shareholder return</li> </ul>	.811 .878 .752 .833	
<p>Stakeholder value</p> <ul style="list-style-type: none"> <li>Satisfying stakeholder's interest.</li> <li>Improvement of triple bottom line (economic, environmental and social) performance.</li> </ul>		.822 .844
Eigenvalues	3.656	1.314
Cronbach alpha	.886	.623

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.754
Bartlett's Test of Sphericity	Approx. Chi-Square	1173.285
	df	378
	Sig.	.000



## Appendix C: Diagnostic Test





**UUM**  
Universiti Utara Malaysia

## **Appendix D: Interview Protocol**

### **Part 1: Company's background, history and current risk management practices**

1. What is the company's main business or activities?
2. To what extent your ERM implementation in your organisation?
3. To what extent sustainability is integrated in your ERM program?
4. What are the drivers and barriers for companies to move forward in implementing the SRM program?

### **Part 2: SRM key factors**

1. Does the top management devote sufficient focus on the sustainability issues and risks that matter most to the stakeholders?
2. Does the top management support the alignment and integration of sustainability into the risk management and corporate strategy in your organisation?
3. Describe your corporate culture's view of risk management.
4. How does your risk culture extend beyond your organization?
5. Does the board understand how these emerging risks could affect the company's risk profile?
6. How would management respond, and how quickly could they respond towards the emerging risks across the enterprise?
7. Does your organisation comply with the relevant laws and regulations?

### **Part 3: Impact of SRM Adoption**

1. What are the impacts of integrating sustainability in the ERM program on the bottom line and company's value?
2. Do you think that SRM implementation helps to increase the stakeholder value and preserve corporate reputation of your company?

## **Appendix E: Case Study Transcribe Data**

### **Company A**

ME: What is the company's main business or activities?

HOD RM: We are one of Malaysia's leading corporations, involved in the automotive manufacturing, assembly and distribution industry through its involvement in the passenger car and four wheel drive.

ME: What is your job responsibility and tasks in your organisation?

HOD RM: Part and parcel of my task is to develop the in-house framework on risk management. In the beginning of the year, we have management meeting where management talk about the target of the year and risk management plan. As a risk owner, I should be alert on the activities that have risk impacts to the company. In fact, a support to the risk owner on the risk identification, action plan implementation and accomplishment of control effectiveness is essential in the risk management practices

ME: When you implement your ERM program and what is your current status of ERM implementation?

HOD RM: ERM has been implemented quite some time in our company. We have started implement ERM in 2002 and our ERM was fully implemented here across the organisation. Our risk management framework processes itself will be based on 3 years business plans. In this case, we take methodologies from ISO 31000 as well as COSO framework and we also look from best practices, Bursa requirements and from Basel as well. When we have all these methodologies we integrate it into our framework.

ME: Can you explain more about your ERM practices?

HOD RM: We have external consultant with us in consolidating and revamping the whole risk management program. We cannot work on its own and need to work with the external consultant together. Once we do the framework, the framework need to be approved at the board level and we cannot simply change and we need to make sure that the framework that we produced is correct and satisfy the management. Before we go to the board we need to have the buy in and the approval from the senior management then can go to the board. For example as simple as this, we have our target and for us to be able to achieve our target this is what we need to do. From the things that we need to do, we need to see what are the hurdles or what are the difficulties could occur that can hamper us from achieving our target. So that is the risk management process where we identify the risk, mitigate the risk and transfer the risk and so on so forth. We have our own procedures and guidelines to support our risk management plan, and we formally assigned functions across the organisation to manage all types of risks. We do conduct an active discussion on the keys risk areas to be evaluated and the controls in place to mitigate or manage risks.

ME: How do you assess and identify risks in your organisation especially on non-quantifiable risk and emerging risks?

HOD RM: Many risks factors need to be focused on including general economic and business conditions, competition and the impact of new laws and regulations affecting our organisation. Risk change all the time and we have our own risk register and risk map to ensure effective monitoring and managing the risks in place.

ME: Do you integrate sustainability in your risk management program? What motivated your company to implement it?

HOD RM: We are in the process of integrating sustainability into our ERM. By the end of this year, we can see the outcome. Partly we did because we want to comply the corporate governance standards and listing requirements. We have to make sure that our company follow the corporate governance requirement and we almost there since. Besides, we need to support our stakeholder's interest and maintain our branding since now a lot competitors coming in.

ME: What are the barriers that might be remain for you to implement and integrate sustainability in your risk management program?

HOD RM: If you ask me whether emerging risks process as parts of it, we are not really thoroughly assessed and discussed on the emerging risks. We faced difficulties in assessing risks of unexpected events due to inadequate risk information and tools

ME: 1. Does the top management devote sufficient focus on the sustainability issues and risks that matter most to the stakeholders? What I mean is your current leadership (effort) in your organisation to integrate sustainability into ERM process?

HOD RM: Management need to assure that all the risk owner understand their risks and keep updated the risk management standing through our Q-radar system quarterly. A sound risk management is important to be exist in our business to sustain. We can see that the failure of few organisations is due to the lacking of buy-in from senior management. Therefore, there is a need to push up to get the buy-in from the senior management. Once the buy-in was achieved, we would be able to demonstrate the best practices of risk management in addition to develop a strong risk culture in our organisation. Without the support from the board and senior management, a risk management program cannot sustain because you need teams. We need to give training to our teams to make sure they understand the risks

ME: How about risk culture across your organisation?

HOD RM: Risk culture is fundamental of any changes in risk management program. Definitely, it takes time for us to promote risk culture properly. We have training program including continuous risk management workshop and literacy risk programs to enhance understanding of our employees at all level on managing a wide-ranging risks to our employees. In term of risk awareness, so far I would say that not all but at least we are there to ensure that our employees at all level know the core concept of risk management.

ME: How would management respond, and how quickly could they respond towards the emerging risks across the enterprise?

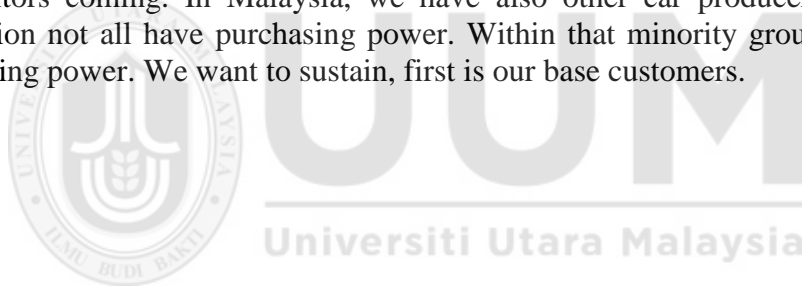
HOD RM: Emerging risks are risk that we don't know yet and perhaps quantitative and qualitative measures is needed to assess this kind of risks. To some extent, we cannot predict the unexpected events as environment changed so fast. Our teams and business units are still struggle to evaluate and place appropriate control to manage these risks. Probably a more sophisticated risk measurements need to be develop by companies to anticipate these kind of risks.

ME: Does your company consider your compliance as part of the risk management process?

HOD RM: As an automobile manufacturer, we have a responsibility to ensure that our product met the product quality and safety requirement in accordance with rules and regulation. We need to consider major environmental and safety requirement mainly because they are related to other risks such as reputation risk.

ME: What is the impact of implementing SRM in your organisation?

HOD RM: Previously, before the year 2000, the economic condition was very good, however beyond the year 2000; a lot of competitors came in. It is a challenge to the enterprise to be able to sustain with the increased risk and complexity. Sustainability is part of the business strategy to maintain our branding. Of course, we need to sustain our customers in the long-run. Because previous, one to two players now, a lot competitors coming. In Malaysia, we have also other car producers. In Malaysia population not all have purchasing power. Within that minority group, a very small purchasing power. We want to sustain, first is our base customers.





## **Company B**

ME: What is the company's main business or activities?

ARM: Our company is incorporated on 7 February 1995 and listed in the Main Board of Bursa Malaysia on 2 February 1996. Our main businesses are property and township development, construction, road building and maintenance, quarry.

ME: What is your job responsibility and tasks in your organisation?

ARM: Actually I am newly joined, so far I need to identify & assess risks, implement & monitor action plans and report to risk manager on event of any risks. Our company just developed their own ERM framework and started to implement it by end of this year

ME: When you implement your ERM program and what is your current status of ERM implementation?

ARM: Beforehand, our company manage risk, according to project basis. Every new project gone through on risk assessment since the management getting concerned on risk associated with the project only in avoiding any losses in the future. For now, I admitted that our company objectives are not closely linked with the risk management plan since we are not incorporating risk management into day to day operation. In the meantime, we don't have any framework and risk appetite and after this once we initiated a framework, we will implement a daily update on risk. I admitted that the company objectives for now are not fully linked with the risk management and strategy. We are not incorporate into day to day operation since we are partially implemented risk management.

ME: Can you explain more about your ERM practices?

ARM: This time around, we initiate a risk management framework and now we in the middle of engaging with the risk management consultant to construct our risk management framework and all risk appetite. Our policy and guidelines for a new framework adopted from ISO31000

ME: How do you assess and identify risks in your organisation especially on non-quantifiable risk and emerging risks?

HOD RM: So far, we don't have the risk appetite and after this we will have daily update on risk.

ME: Do you integrate sustainability in your risk management program? What motivated your company to implement it?

HOD RM: No, we don't integrate sustainability as we are at the early stage of ERM implementation.

ME: Does your company consider your compliance as part of the risk management process?

HOD RM: As a construction developer, we need to comply with rules and regulation provided by the Department of Safety and Health (DOSH). This was done to avoid

risk of non-compliance which might lead to prolonged of project schedule. There was an issue previously when one of our projects got delayed due to the complaints by the residents living around the project site. Due to that, our company is now getting aware with those kinds of non-compliance risks since it had a greater effect on our reputation



## Company C

ME: What is the company's main business or activities?

HOD RM: Our company is the world's largest Crude Palm Oil (CPO) producer and the second largest Malaysian palm oil refiner. We are listed on the Malaysia Stock Exchange since June 2012, our focus spans three core business sectors: plantation, sugar and logistics. We have operations in more than 10 countries across Asia, North America and Europe.

ME: What is your job responsibility and tasks in your organisation?

HOD RM: Part and parcel of my task is I need to ensure that adequate attention and oversight related to all types of risks in our company and reported to the top management. Don't underestimate anybody's role. Everybody is important in the organisation regardless of its position. Everybody contributes to the risk management and it is a more balance structured. Everyone in the organisation should know about risk of each other because it is interdependent at end of the day. Every employee is part and integral to our group risk management.

ME: When you implement your ERM program and what is your current status of ERM implementation?

HOD RM: ERM was fully implemented here across the organisation and we have started to implement it in 2008. Risk management is an important priority in our organisation and therefore integration between risks and objectives was important for us to ensure that our company's targets are achievable and realism. We applied the best practice ERM frameworks which are ISO 31000 and COSO across our organisation. ERM process is within our company's business plan. We have many subsidiaries and so far almost 80 percent to 90 percent of our subsidiaries had completed the ERM process.

ME: Can you explain more about your ERM practices?

HOD RM: ERM is a bigger picture and the tool commonly that I used is risk register. Risk register contains a lot of data. The first thing that I want to know is the profit before tax (PBT). Because the current and future PBT are all reflected in our business plan. The business plan that we are trying to achieve in the meantime that is we are targeting 100 billion sales by 2020. Currently we are now reaching the 20 billion sales. Therefore, we need to ensure our target is achievable

ME: How do you assess and identify risks in your organisation especially on non-quantifiable risk and emerging risks such as adverse climate pattern?

HOD RM: Plantation industry is very unique by itself. There is one of the risks that we cannot control which is weather. The current El-Nino issue we had presented to the board, but so far the effect of El Nino was not so bad since now lots of rain. It is quite common to us and that we have our proper procedure to look into this as well as our business continuity plan. You can never manage the weather. The risk is the weather, but the strategy you can never manage the weather, however, the strategy is to manage the impact. When it was hot, of course we faced water crises; therefore, I need to ensure that there is water. I cannot put strategy to manage the weather since

the weather is a God creation and is beyond human control. In our company, we must make a major strategic plan risk projection in managing these types of risks to ensure better decision.

ME: Do you integrate sustainability in your risk management program? What motivated your company to implement it?

HOD RM: We have a Malaysian Code of Corporate Governance (MCCG) and Bursa Malaysia listing requirement that we need to comply and totally all of these supported our risk management program. Besides, sustainability provides a long-term balance of financial, environmental and social for enriching our company values. We engaged with our key stakeholders in addressing environmental and social issues because we need to make sure that every risks arising from our business activities does not affect our goals and stakeholder's interest. In other words, our company did this for good business practices.

ME: Can you explain more on your effort in integrating sustainability in your organisation?

HOD RM: Sustainability is a broad concept and mainly not focusing on the environmental and social aspects only. It's all about transforming risk into opportunities for the sustainability of an organisation. Our risk management, I would say that we are not focusing on internal environment but also external environments that affect our business sustainability. We need to take a look on the external risk as well instead of internal risk because external risks had greatest impact on our survival.

ME: What are the barriers that might be remain for you to implement and integrate sustainability in your risk management program?

HOD RM: Less attention was given on the unknown risks especially by the board. I would argue that when unknown risks were not given priority in our organisation, this would probably resulted a lack of interdependencies between unknown risks and other types of risks and hence will affect the value of the company.

ME: 1. Does the top management devote sufficient focus on the sustainability issues and risks that matter most to the stakeholders? What I mean is your current leadership (effort) in your organisation to integrate sustainability into ERM process?

HOD RM: To make progress on sustainability integration here, we need to engage people and combine our efforts. Leadership is key to achieving effective risk management for long-term survival. Therefore, a strong awareness and in-depth knowledge at the management and board level is critical. The board should be responsible for all risk management activities. After all what we have done were sought after by the investors to see the sustainability of our organisation. The level of buy in for companies listed under Bursa is mandated because for every year end we would need to incorporate in the Annual Audited Accounts the following Statement of Risk Management and Internal Control. Furthermore, we engaged with our key stakeholders in addressing environmental and social issues because we need to make sure that every risks arising from our business activities does not affect our goals and stakeholder's interest.

ME: How about risk culture across your organisation?

HOD RM: I think the key is awareness. Everybody contributes to the risk management and it is a more balance structured. Everyone in the organisation should know about risk of each other because it is interdependent at end of the day. Every employee is part and integral to our group risk management. This requires an understanding of our people at all division to mitigate the sustainability risks, so we do conduct more risk management training courses to enhance the knowledge on sustainability risks among the employees. Previously our risk culture is extremely strong. I would say before the year of 2008, our risk management culture was very strong. However, due to the corruption, we faced a greater reputational risk which leads our share price dropped and we were losing a lot in fact. Pursuing high ethical conduct was important for us to build a good corporate reputation. Many factors had actually influenced and one of that was the unethical behaviour and low integrity due to corruption. What was happened actually portray the culture of the organisation itself since risk management is part of the culture. Towards the ends, it will affect the business sustainability and threatening the corporate survival. I would argue that if you can remove the politician out of the top management, this will never be happened.

ME: How would management respond, and how quickly could they respond towards the emerging risks across the enterprise?

HOD RM: Two way communications between management and the board is important in risk management process. Our management and the Board could not ignore the importance of risk management. Annually Risk Management Department will provide its year plan and it shall be approved at the Board Governance Risk Management. Risk management creates an opportunity, strategy and more focus. Risk management formed the governance. A strong awareness and in-depth knowledge at management and board level is critical. The board should be responsible for all risk management activities. Emerging risks means something which is new and it can be measured. In risk, you know this is a bell curve. Here is what we called tail risk. Here I cannot anticipate/ predict this to be happening. Given an example of emerging risk is Lahad Datu standoff. Believe it or not, one of the risk management committee (RMC) actually predicts this to be happened, but management had not taken seriously on this matter because they assumed that this will not be happened.

ME: Does your company consider your compliance as part of the risk management process?

HOD RM: All regulation has to be followed and complied such as effluent discharge, carbon emission. We are not directly involved, but our subsidiaries involved to ensure that our business operations complying all rules and regulations. We ensure that our policy and standard of procedures (SOP) were revised every quarterly and this were conducted by the committee that take a look over the policy and SOP in our company. We also need to undertake a comprehensive update and review of its materiality assessment on the sustainability risks and opportunities in accordance with the Global Reporting Initiative.

ME: What is the impact of implementing SRM in your organisation?

HOD RM: Sustainability provides a long-term balance of financial, environmental and social for enriching our company values. When we do the right things, of course it would add value to our reputation. After all what we have done is sought after by the investors to see the sustainability of our organisation. That one creates the business sustainability. Risk management is very tough and broad. This need to be done to see businesses are run in the long-term and whether objectives are achieved and to add value for our company.



## **Company D**

ME: What is the company's main business or activities?

HOD RM: Our company was incorporated in Malaysia on 6th August 1973 under the Companies Act, 1965, as a private limited company. We are listed on the Malaysia Stock Exchange since 1992. Our main activity is in the cultivation and production of oil palm. We dedicated and committed to provide oil palm plantation advisory and management services to all of its estates.

ME: What is your job responsibility and tasks in your organisation?

HOD IA: As you can see here, we have lack of staff to fully implement the risk management programme. There is only one staff out there helping me in preparing all documentations related to risk management activities. Here, I need to perform duties under a multi-tasking environment. I was also in charge of handling the security matters; in fact if anything happened at the estate and mills, I also need to be there to resolve the problem arose.

ME: When you implement your ERM program and what is your current status of ERM implementation?

HOD IA: We had ERM in our organisation for quite a long time, however we have limited resources (people, time and money) to fully implement the risk management program across our organisation. Our ERM framework has not been revisited periodically. We had engaged in ERM program in October 2002 as consulted by KPMG Malaysia at that time and our risk management framework was adopted from ISO 31000. I would say that our ERM was partially adopted and hence further improvement would be sought after to effectively implement ERM in our company

ME: How do you assess and identify risks in your organisation especially on non-quantifiable risk and emerging risks?

HOD IA: We do not have a real formal process to respond to risks. When it comes to risks, I will routinely assess risk but normally risks that we are prioritised are usually the same. For instance, these are for example 10 risks that are prioritised in our organisation such as movement CPO prices, risk related to foreign workers, outbreaks of oil palm plantation diseases, damage from pests, regulatory changes and others. We also faced risks from adverse climate conditions, as well as downturns in the global economies. Extreme weather change had likely affected our production level so far and with oil prices dropped recently also had affected the price of crude palm oil to be dropped.

ME: Do you integrate sustainability in your risk management program? What motivated your company to implement it?

HOD IA: In our board meeting previously, the board of directors (BOD) had requested me to focus on sustainability risk and opportunities. Definitely, compliance towards MCCG is the key driver I think. We do implement and in the process to integrate sustainability because first of course we need to comply with new MCCG 2012, part of that because we need to comply with EU policy to penetrate the global market and lastly to create value for our stakeholders. Well, to penetrate the European

Union (EU) market, we are required to develop sustainability guideline, strategy and policy to meet their certification and standards. Otherwise, the penalties will be imposed if we cannot satisfy the essential requirements

ME: Can you explain more on your effort in integrating sustainability in your organisation?

HOD IA: We are now focusing on the sustainability efforts to manage associated risks as well as seizing the opportunities. We had just started to conduct a social and environmental impact assessment. We are bounded to meet the regulatory requirement in minimising environmental and social impact in order for us to get a certification by the International Sustainability and Carbon Association (ISCC) to penetrate the European Union (EU) market.

ME: What are the barriers that might be remain for you to implement and integrate sustainability in your risk management program?

HOD IA: I would say that unsupportive cultures are the biggest impediment for sustainability integration into ERM. This is because our management does not aware that they are actually integrated in the risk management system. They just pass their responsibility to me, whereas risk management is everybody's responsibility. Typically, people on the production site wanted to reach their production target only and they are not aware of risks.

ME: 1. Does the top management devote sufficient focus on the sustainability issues and risks that matter most to the stakeholders? What I mean is your current leadership (effort) in your organisation to integrate sustainability into ERM process?

HOD IA: In our board meeting, our board have been very supportive towards the sustainability issues. Yes, like I mentioned before, our board have mandated our senior management to demonstrate the responsibility towards sustainability issues for getting the International Sustainability and Carbon Certification (ISCC).

ME: How about risk culture across your organisation?

HOD IA: What I can say is it's extremely lack of risk culture in our company. The communication regarding risk is really ineffective because the level of awareness on risk at the employee level was very low. It's very difficult to promote risk culture within our company since here risk management is my responsibility. In fact, everybody here does not understand what constitutes a risk

ME: How would management respond, and how quickly could they respond towards the emerging risks across the enterprise?

HOD IA: Ultimately here, we focus on those risks that can be quantified. This is because our board of directors (BOD) basically difficult to have a look at the emerging risks and non-quantifiable risk. However, I certainly monitored on emerging risks that had greatest impact on our profitability such as extreme weather change and CPO pricing level. Extreme weather change had likely affected our production level so far and with oil prices dropped recently also had affected the price of crude palm oil to be dropped



ME: Does your company consider your compliance as part of the risk management process?

HOD IA: All the standard of procedures (SOP) our company actually embedded in the risk management system. We are very strict regarding the standards and policies related to environmental and social aspects. We have a clear policy and SOP on selection of chemicals, zero burning policy, GHG emission, and etc. All the compliance matters we need to fulfil, because otherwise regulators will impose us penalties for non-compliance activities.

ME: What is the impact of implementing SRM in your organisation?

HOD IA: We do integrate sustainability to penetrate our product to be marketed worldwide and of course we can sustain our business more in future as sustainability help to improve and increase operational efficiency of our businesses. We are bounded to meet the regulatory requirement in minimising environmental and social impact in order for us to get a certification by the International Sustainability and Carbon Association (ISCC) to penetrate the European Union (EU) market.

